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THE HISTORY
of
BASE HOSPITAL N^O. 18, A.E.F.
(JOHNS HOPKINS UNIT)



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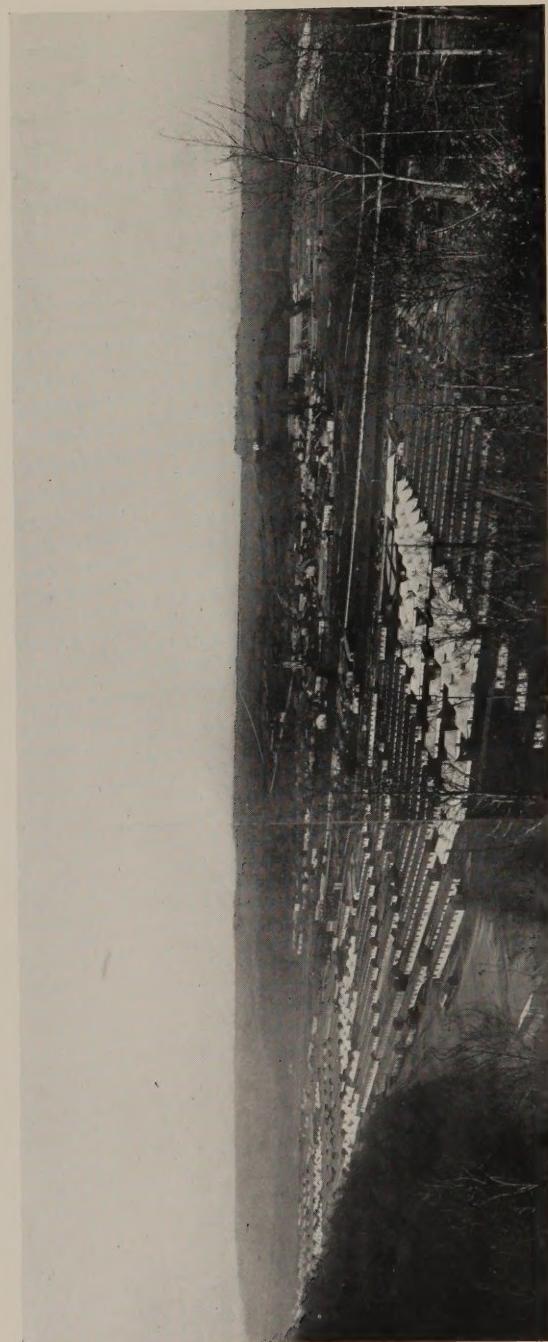
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THE VALLEY—BASE GROUP, BAZOILLES

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HISTORY

OF BASE HOSPITAL No. 18

AMERICAN EXPEDITIONARY FORCES
(JOHNS HOPKINS UNIT)



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BASE HOSPITAL 18 ASSOCIATION
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INTRODUCTION

THE HISTORY OF BASE HOSPITAL No. 18 (JOHNS HOPKINS UNIT) IN THE GREAT WAR

THIS volume is compiled as a record of the activities of Base Hospital No. 18 to preserve in permanent form, for the personnel of the Hospital and their friends, the memories of its activities and achievements during the war against the Central Powers of Europe. The contents which go to make up this little book were contributed by many different individuals and much reduplication and overlapping of the different accounts will be observed. The committee charged with the preparation of this book have altered to some extent and combined in various ways the articles submitted by the different contributors, eliminating where possible the purely personal elements of their narratives, and attempting to bring into general conformity the style of description employed. In spite of this, much irregularity will no doubt be noticed, and possibly some important facts are entirely omitted. It will be borne in mind by the reader, however, that this pamphlet does not pretend to be a work of literature, but simply an historical record of the outstanding events connected with Base Hospital No. 18. The story of the Unit as a whole will be told first, and afterward special articles dealing with the various activities in which the members of this unit engaged are presented by the men who took part in these special activities.

PREPARATION AND THE START

Along toward the middle of May, in the the year 1917, as a result of the visit to the U.S.A. of the French Mission headed by General Joffre, the urgent necessity for the immediate dispatch of an American Expeditionary Force to the assistance of the Allies became at once apparent. Unfortunately, at that time the United States, owing to the lack of preparation due to the neutral position occupied by them since the beginning of the war, were in no position to do more than send a comparatively small force for its moral rather than its military effect. In order to respond to this call, great activity was immediately begun in all branches of the War

Department and the Navy as well. Those were busy days in Washington, with many representative men in all walks of life, from all sections of the country, summoned thither for their advice and counsel.

The Medical Department found itself in the same general position as the other branches of the military service. It had been generally understood that this first expeditionary force was to be composed entirely of Regulars. But for one reason or another, almost at the last moment, it was decided to call upon the Medical Reserves to the extent of the personnel of one Base Hospital to look after the sick and wounded of the First Division of the overseas troops. So it was that the hearts of the doctors and nurses from Johns Hopkins Hospital, comprising the staff of Base Hospital No. 18, were made glad, when in the last days of May word came from Washington to recruit the requisite number of enlisted men to complete the roster, to provide the necessary material and equipment, and to be prepared for orders to proceed to New York to embark for France at an early date. Those who were fortunate enough to compose that group will not soon forget the feverish activity, nor the suppressed excitement and expectancy of those first few days of June, preceding that fateful 9th of June, 1917, when, after having said our tearful good-byes in sections, first the enlisted men, then the nurses, and finally the doctors, we assembled as a unit for the first time on the dock in Hoboken, and embarked on the good ship *Finland*. To the good people of Baltimore, whose generosity made possible the equipment of the Unit, we wish to return our sincere thanks. The indefatigable labors of Dr., now Colonel, Winford H. Smith and his efficient secretary, Miss Brinkley, in conjunction with certain members of the Unit, rendered possible our departure in good shape on the very short notice that was given for the final preparations. We were joined in Baltimore by our Quartermaster, and in New York by our Commanding Officer, a regular. The regular adjutant assigned to us never materialized.

After what seemed to our eager minds an interminable delay, we finally, on June 14th, weighed anchor, and with flags flying and bands playing, the First Division of American troops, consisting of the 16th, 28th, 26th and 18th Regiments of Infantry, sailed bravely forth from the mouth of the Hudson, bound for an unknown port.

J. M. T. FINNEY.

"HEIGHO TO THE FATTED CALF"

(To the tune of "When the Caissons Go Rolling Along.")

A musical score for two voices. The top staff is for the treble voice and the bottom staff is for the bass voice. The music is in common time (indicated by '2/4'). The key signature is A major (no sharps or flats). The melody consists of eighth and sixteenth note patterns. The bass part provides harmonic support with sustained notes and chords. The score ends with the instruction "Repeat first line".

A continuation of the musical score, starting from the repeat sign. It follows the same structure with treble and bass staves in common time (2/4) and A major key signature. The melody and harmonic progression continue from the previous line.

A continuation of the musical score, starting from the repeat sign. It follows the same structure with treble and bass staves in common time (2/4) and A major key signature. The melody and harmonic progression continue from the previous line.

In Bazwill, on a hill, near a little winding rill,
In the barracks defacing the ground,
We were trapped, but we scrapped, in the mud and rain and chill,
While the wild boars were roaming around.
But now, Heigho, we'll fight the fatted calf, and never go roving again
Except in thought, to know the time we fought,
While the wild boars were roaming around.

We began, with the clan, posing for the movie man,
In a tavern, one bright summer's day.
Khaki clothes, quelque chose, we were soldiers of the van,
While the movie kept clicking away.
On then, Heigho, we found it all a lark, and thought of the folks at the show,
When old Eighteen would flicker on the screen,
While the movie kept clicking away.

Then on board, we were stored, in an ocean-going Ford,
And we filled it with laughter and song.
Music played, cannon brayed, and the engine fires roared,
While the *Finland* was rocking along.
Heigho, we sang, "Give us the Army life, there's nothing as fine in the world,"
But don't forget, we didn't know it yet,
While the *Finland* was rocking along.

Anyway, one fine day, saw us capture Savenay,
And just aching to get in the fray,
So we stayed, though we prayed, all we did was get our pay,
And the whole gang was pining away.
Oh, then, good Lord, we found it hard to bear, and cared not a hang if we died,
And so we stayed, although we prayed and prayed,
And the whole gang was pining away.

Finally, glory be, found us bound for Bazwilly,
With old Eighteen some two hundred strong,
Packed in tight, slept all night, on a neighbor's head or knee,
While the dinky was dribbling along.
On then, Heigho, we left a dusty trail, and roughed it as rough as could be,
We ate canned slum, and thought the war had come,
While the dinky was dribbling along.

In Bazwill, on a hill, near a little winding rill,
In the barracks defacing the ground,
We were trapped, but we scrapped, in the mud and rain and chill,
While the wild boars were roaming around.
But now, Heigho, we'll fight the fatted calf, and never go roving again,
The Army's fine, but nevermore for mine,
While the wild boars are roaming around.

GENERAL HISTORY

EARLY in the winter of 1917, different medical centers throughout the United States made tentative preparations for supplying medical units, which could be utilized as base hospitals. These units were at first to be under the direction of the Red Cross, with the understanding that, as the need arose, their control could be assumed by the Army Medical Corps. Their personnel was to be furnished from the physicians and instructors in medicine, the nurses, and, in some part, by the orderlies and the civilian employees of the particular hospitals and medical schools, plus local enlistments. A hospital fund for the equipment and early maintenance of the units, together with a reserve for the future needs, was to be supplied through the local Red Cross Chapter.

The organization was along the lines laid down by the manual of the Medical Department. This was in large part speculative inasmuch as there were only a few comparable units extant—such as the Walter Reed Hospital—and, indeed, this comparison is rather overdrawn when it is remembered that these new units were to be for war service, to be transportable, and with a personnel entirely unfamiliar with the Army administrative routine, that carried the regular units along the daily paths of peace. As the Army Medical Bible records: "A general hospital of standard size has a capacity of 500 beds, exclusive of isolation wards. Complete plans and specifications for the erection of temporary hospitals of this capacity, for use in time of war or other emergencies, are on file in the Surgeon-General's office. These plans and specifications are also suitable for use in the additional buildings for the temporary expansion of hospitals already organized."

"The following tabular statements furnish a working plan of administration and give an approximate idea of the personnel required."

This was practically all the information obtainable, and the "complete plans and specifications for the erection of temporary hospitals" were never forthcoming. The "tabular statements" were applicable in only a small part, and, except for instruction as to the total numbers (afterwards to be altered),

of doctors, nurses, and enlisted personnel, the organization of the Red Cross hospital units was dependent at first in great part upon the ideas of those interested.

At the Johns Hopkins Hospital, the superintendent, Dr. Winford Smith, took immediate interest in the organization of such a unit. He spoke with the heads of the different departments, who immediately held meetings for the arrangement whereby alternate members of the different staffs would be kept to continue the essential work at home, and the others would be grouped as candidates for the Red Cross and other Army units. As one reads of the present staff of Johns Hopkins, it is remarkable the number who could be spared! However, the approximate officer personnel was picked in such a way that the different specialties would all be represented, and those who were not already members entered the Medical Reserve Corps. In the same way volunteers were found and examined from among the nurses of the institution and a rough summary of available cooks, orderlies and stenographers was made.

After war was declared, the personnel became more specific, and under the active direction of Dr. Smith and Dr. George Walker, the Baltimore Red Cross Chapter became interested in the procuring of equipment and the necessary funds. This represented an extreme amount of work, for at that time the war spirit was not very high. Consequently the supplies which afterwards were so essential, stand for individual efforts.

In the meantime, Dr. Smith in his associations with the Surgeon-General's office had proved himself essential to that department, and Dr. Finney was appointed director of the Unit. In May it was decided to send a base hospital to France with the first American Expedition, and an effort was made to organize a unit from the regular army. This was soon found to be impracticable, and the Johns Hopkins Unit, which until then was represented only by a number—18—was substituted.

At once the officer personnel was actually named under Dr. Finney, and the nurses under the direction of Miss Bessie Baker, the chief nurse, were examined and enlisted. On May 24th, Dr. E. W. Bridgman was recalled from his work at an officers' training camp, to make enlistments for Base Hospital No. 18. He was actively assisted in his work by Dr. V. R. Mason and Dr. V. P. Sydenstricker and by volunteer members of the staff. Advertisements were inserted in the daily papers, employees of the hospital were approached, and in less than five days 110 men had been picked. Considerable delay was necessitated by the indecision of the faculty as to the procedure in the case of the applications of the third-year students. The assurance of the Dean that these men would receive their degrees on the completion of the next scholastic year was regarded as sufficient and 32 were enlisted. A great deal of thanks and credit is due these students

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for their interest and assistance in the early organization; always uncomplaining and dependable, they set a fine example to the enlisted men.

In the next few days the additional enlistments were made, and especial effort was directed towards getting stenographers, plumbers, carpenters, etc., and Dr. Wharton was sent to New York for cooks. On the 29th of May the following telegram was sent to the Surgeon-General's office: "In compliance with telegraphic orders, Governor's Island, May 24th, I have enlisted 148 men for Hopkins' Hospital Base Unit. Four cooks come from New York tomorrow. A regular hospital corps sergeant has been requested. Enlistment papers and physical examinations complete. Descriptive lists and identification records started. Designation cards finished tomorrow. Vaccinations, smallpox, typhoid and paratyphoid proceeding rapidly. Suggest adjutant and quartermaster assigned at once with orders for outfitting at Allentown. Request Drs. Bridgman, Mason, Shaw and Wharton, members of Unit, be detailed to accompany Unit for vaccination and instruction. (Signed) Bridgman."

Meanwhile the equipment was being bought and collected for shipment to New York, under the drive of Dr. Walker's energy. It was he, almost alone, who is to be thanked for the safeguarding of the equipment and its safe arrival in St. Nazaire, from where Dr. Baetjer got it to Bazoilles. The vaccination of the nurses and doctors was started at this time, to be completed, with a few of the enlisted men, on the boat going over.

On the 4th of June the nurses were sent to New York for their uniforms and preparations were made to send the enlisted personnel to Allentown. On the 5th the quartermaster, Captain John M. Tipton, arrived, and on the 6th the enlisted personnel, which had been reporting daily after the 1st of June, were instructed to meet at Camden Station for their trip to New York. That night clothing requisitions were compiled and given to the quartermaster who filled them the next day at Governor's Island, and sent the obtainable equipment to the wharf. The newly arrived Unit appeared at Jersey City to find its birth had not yet been recorded in New York, and under the guard of the students the men were kept at the station until arrangements could be made by the quartermaster for their temporary housing at the Mills Hotel. The following day Major Heysinger arrived to take charge of the Unit and the officers arrived from Baltimore. The 9th of June orders arrived to board the *Finland*, and the next morning the boat dropped down the bay, awaiting, inside the submarine chain, our final departure on the 14th. The transport remained in New York Harbor until 12.45 p. m. on June 14, 1917, when the anchor was lifted and the *Finland* started on her voyage to Europe.

The first division of American troops was divided into three convoys, the *Finland* being a part of the third. In this convoy there were three other troop

ships, the collier *Cyclops* of the U.S.N., the cruiser *Charleston*, and a varying number of torpedo destroyers, at times as many as eight, and at other times as few as three. The voyage across the Atlantic was in the main uneventful. This was the period of maximum submarine activity on the part of Germany, and as a measure of precaution, the convoy took a most indirect and circuitous course. It was a constant matter of speculation among the personnel on board as to where we were at any given time. There were moments when doubt was entertained as to whether anyone, even the captain, knew exactly our position. The weather was delightful throughout the whole trip, and the principal matter of interest was the watching for possible submarines. The transport mounted four 4-inch guns with their gun-crews, and with the other vessels of the convoy engaged in daily target practice at targets towed in the water by other vessels. There were the strictest regulations against lights of any kind appearing after dark on the vessel, even smoking on deck being strictly forbidden. Upon one occasion, a submarine alarm was given and for a few moments great excitement prevailed when the *Charleston* fired several shots at the supposed enemy. The actual existence of this submarine was never verified. Among the activities which broke the routine of life on shipboard were occasional "abandon ship" drills, in which the entire personnel on board participated. At a given signal of one long and four short blasts of the whistle, everyone was compelled to report to his lifeboat or raft and stand inspection as to his readiness to disembark.

On the 20th of June, which chanced to be Doctor Finney's birthday, he was given a party by the nurses and doctors, at which a number of speeches were made and the birthday cake with fifty-four candles was the center of the refreshments.

On the 27th of June our convoy was joined by two French torpedo boats, which, added to those already with us, brought the total number of destroyers up to eight, and formed a complete ring of naval vessels about the transports.

On June 28, 1917, at 11 p.m., the convoy came to anchor in St. Nazaire, France, and was welcomed by large crowds of French who thronged the docks and quays, singing and cheering, and among whom were sprinkled a number of American soldiers and sailors who had arrived on the two other sections of the convoy which reached St. Nazaire earlier than ours did. On June 30th, the baggage and equipment of the Hospital was unloaded and transported to Savenay, France, a small village about thirty miles from St. Nazaire. The personnel was taken there in the afternoon and quartered in a new building which had been erected as a normal school, but was taken over by the American Army to serve as a hospital. For a few days the time was spent in organizing the Unit,

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in giving officers, nurses and men a certain amount of military training, and in waiting for definite orders as to our future movements. On the Fourth of July a celebration was held in which the French people joined. There were games and field sports during the daytime, a reception to the mayor and citizens of the town during the afternoon, at which speeches of welcome were exchanged, and in the evening a dinner in the town hall to which the mayor was again invited, and more exchanges of compliments took place.

On July 5th the thirty-five causal nurses who had been attached to us for the voyage across the ocean, together with thirty of our enlisted men and Doctors Boggs, Stone, Bernheim, Mason and Sydenstricker, were detached from the rest of the Unit and sent back to St. Nazaire to take over the first American hospital organized with the American Expeditionary Forces. This hospital was located in what had formerly been a high school in the town of St. Nazaire. It had been used by the French during the first three years of the war as a military hospital, and had been transferred to the American Army a few days before the party from Base Hospital No. 18 took charge of it. It contained about two hundred and ninety American soldiers and civilian employees, many of whom were in urgent need of prompt medical and surgical attention. The larger number of cases were acute infectious diseases which had affected many troops of the First Division during the trip across the ocean. There were also a number of acute surgical cases, and the operating room was at once organized and started to work. During the first few days following July 5th, Dr. Boggs acted as Commanding Officer of this organization which was known first as U.S. Army Hospital A.E.F. No. 1, but which subsequently was designated as Base Hospital No. 101, and as such continued to function throughout the war. Within a few days Major Crum, of the Regular Medical Corps, was assigned as Commanding Officer of this hospital; Dr. Boggs became Adjutant and Chief of the Medical Service, Dr. Stone being the Chief of the Surgical Service. The enlisted personnel was increased by the addition of fifteen more men from Base Hospital No. 18, and the assignment of a number of causal Medical Department men belonging to the Regular Army. The officer personnel was also increased by the assignment from Base Hospital No. 18 of Drs. King, Happ, Shaw, Wharton and Lankford. During this period there was a more or less constant amount of medical and surgical work, which, at times, was quite heavy, but towards the middle of August, the First Division moved into the forward areas around Gondrecourt, France, and in consequence the number of patients admitted to the hospital greatly decreased. All this time there was a great deal of anxiety felt lest the group who had been temporarily detached from the unit to serve at St. Nazaire should become permanently separated from Base Hospital No. 18. This was a source of great concern, not only for personal reasons, caused by the possibility

of breaking up the associations of the Unit and its fine *esprit de corps*, but also particularly because of the danger involved to the interests of the medical students who were with us. Among the enlisted men of the unit there were thirty-two students from the Johns Hopkins Medical School who had completed their third year in medicine. These men had been enlisted as privates in the Medical Reserve Corps with the understanding that they should be given practical training in a hospital in France, as well as organized teaching by the members of the Staff, and upon the completion of their course, would be granted a degree in medicine by the University and a commission in the Army as medical officers. The possibility that some of these men who were in the St. Nazaire detachment would be unable to complete the projected course of study, and hence that the plan under which they had been enlisted would become impossible to carry out, was a source of a great deal of worry. Efforts were brought to bear to have the portion of the Unit who were serving at St. Nazaire relieved from that assignment and reattached to the main body of the organization. These efforts were finally successful, and in the latter part of August, 1917, orders came for Base Hospital No. 18 men to return to their own unit. Several days of delay were caused by waiting for sufficient personnel from other sources to arrive and take over the care of the St. Nazaire Hospital, but by the 1st of September all of the Base 18 group, with the exception of Drs. Boggs, Mason and Sydenstricker, had returned to join Base Hospital No. 18. These three officers were also relieved and ordered to Base Hospital No. 18 about two weeks later. It will be seen that this group of men had the distinction of opening, organizing and running for a period of about two months the first American hospital which served the troops of the A.E.F. in France.

In the meanwhile the main body of the Unit had remained at Savenay waiting until the American Government could take over hospital facilities in the area which American troops were to occupy near the front lines. During this period a number of members of the staff were allowed to visit for short intervals certain of the French hospitals and see the work of certain French professional men of distinction. The time was spent in a certain amount of military training, which was not perhaps directed in the best way to secure the results desired. There was a general feeling that the Commanding Officer failed to grasp the purpose for which a base hospital was intended and to understand the type of people who were working under his command, consequently there gradually arose a great deal of strain in the relations between the Unit and its Commanding Officer, which increased steadily until the situation became intolerable. In the meanwhile a French barrack-type hospital located at Bazoilles-sur-Meuse, in the Department of Vosges, France, had been taken over from the French Government, and to this location Base Hospital No. 18 was ordered. They arrived

there on July 26, 1917, after a long and tedious journey across France in a troop train. The monotony of this trip was relieved by a number of instances whose amusing character made them stand out in the unwritten traditions of the Hospital, and provided a fund of anecdotes that have often delighted their hearers. Before the Hospital as a whole moved to Bazoilles, Dr. Walker and Dr. Eaton, with twenty of the enlisted men, had preceded the main body, taken over the buildings and grounds and put them in order. With the coming of the rest of the Unit to what was to be its permanent home in France, the work of the organization was rapidly attacked—the wards, laboratory, operating room, X-ray plant and other departments of medical work were put into shape, and the men of the detachment took over and got into running order the electric plant, the heating system, the water plant, the waste disposal arrangements, and soon had organized a well-equipped and functioning hospital. On August 17, 1917, Major Heisinger was relieved from command of the Hospital and Major George M. Edwards succeeded him. This event marks a definite turning point in the history of this Unit. Major Edwards proved himself an intelligent, sympathetic and tactful Commanding Officer, who quickly won the loyal support and affection of the entire organization. Under his leadership the friction which had previously interfered with efficiency disappeared, and the Hospital was very soon in that desirable condition of enthusiastic and loyal effort which has characterized it throughout its history.

At this point a brief description of the location and surroundings of the hospital may be of interest. The village of Bazoilles is a place of about 200 inhabitants, situated on the upper headwaters of the River Meuse in the Department of the Vosges, France. It had on its outskirts a private estate, described more completely in another section of this history, consisting of a stone hunting lodge, several groups of stone outbuildings and a very attractive tract of forested hillside in back of it of perhaps twenty-five acres area. The estate had been taken over by the French Government early in the war, and in addition to the permanent buildings already in existence, a barrack-type wooden hospital had been constructed on the grounds, of an estimated capacity of 1,000 beds. The wooden ward buildings were arranged on both sides of an avenue running up the hillside, which was roofed over, but not inclosed on the sides. In addition, there were detached barrack buildings for the use of the hospital personnel as quarters, kitchens, mess hall, etc. There was already an electric lighting and water supply system that was taken over by the American Government, and roadways and paths had been constructed throughout the grounds. The hillside on which the hospital was situated forms one of the slopes of a beautiful valley in the foothills of the Vosges Mountains. The surrounding country is rolling and is intersected by numerous small streams, forming a very beautiful landscape. The town is



situated on a small branch railroad running from Langres to Toul, which constituted the only line of communication for the supply and evacuation of the hospital. The climate a large part of the year is damp, and particularly to those accustomed to the warmer parts of the United States, proved very trying. At the time when Base Hospital No. 18 was installed in this locality there were no other American base hospitals farther forward, and until nearly the end of the war, this hospital was the most advanced base hospital serving the American Forces in the Toul and Nancy Sectors.

During the months of September and October, 1917, Base Hospital No. 18 acted as a camp hospital for the several divisions of the American Army which were in training areas near by. This was before any American troops had gone into the trenches for actual battle experience. During this period, the character of the medical work was largely that of a civil hospital. There were the usual diseases as well as many cases of acute infections, such as measles, mumps and scarlet fever. The surgical service was engaged at this time largely in the treatment of the usual surgical conditions which developed in young adults—acute appendicitis, hernias, etc., with a good number of accidental injuries, including gunshot wounds from the handling of weapons. During this time most of the professional staff of the Hospital were given the opportunity to make short trips for observation to the French or British Medical Services, who were actively engaged in caring for troops in combat. These short trips of inspection proved of great practical value in giving first-hand acquaintance with the professional problems of modern warfare.

In the month of September, 1917, the permanent administrative organization of the Hospital was completed; Dr. Stone was made Adjutant; Dr. King, Registrar; Dr. Guthrie, Admitting Officer; Dr. Bernheim, Commander of the Detachment; Dr. Fisher, Chief of the Surgical Service; Dr. Boggs, Chief of the Medical Service, and Dr. Baetjer, Chief of Laboratory. These appointments continued until the persons filling them were relieved from duty with the Unit permanently, or assigned to other duties. Dr. Walker, who had been the Adjutant of the Unit, was detached on November 3, 1917, from which time until the end of the war he had no further duties at Base Hospital No. 18.

Dr. Finney, the Director of the Unit, and Dr. Fisher, Chief of the Surgical Service, were detached from the Unit on February 8, 1918. No other Director of the Unit was appointed to succeed Dr. Finney. Dr. Stone succeeded Dr. Fisher as Chief of the Surgical Service. Dr. Boggs was detached from the Unit on March 19, 1918, and was succeeded as Chief of the Medical Service by Dr. Guthrie. Dr. Baer was detached from the Unit on February 8, 1918, and his position as Orthopedist of the Hospital was filled first by Dr. Graves, of Portland, Ore., and later on, April 29, 1918, by Dr. George Dunn, of the Johns Hopkins Hospital.



These men who were relieved from duty with the Unit were all assigned to important positions in the administrative organization of the various professional services of the A.E.F. Dr. Finney, who later was promoted to the rank of Brigadier-General, was placed in charge of the Surgical Service of the A.E.F. and with him was associated Dr. Fisher, later promoted to the rank of Lieutenant-Colonel. Dr. Boggs became one of the chief advisors of Dr. Thayer, who was in charge of the Medical Service of the A.E.F., and was given the rank of Colonel. Dr. Baer served in a similar capacity in the organization of the orthopedic work, associated with Dr. Joel L. Goldthwait, Chief of that Service, and was made Lieutenant-Colonel. Dr. Walker was given charge of venereal prophylaxis and hygiene at the base ports in France used for the debarkation of American troops, and was made Lieutenant-Colonel. Dr. Waters, who was in charge of the X-ray Department of Base Hospital No. 18, was also relieved from duty with the Unit and assigned as associate to the Chief of the Radiographic Service with the A.E.F. on April 5, 1918. He was succeeded by Dr. John Singer, of Greensburg, Pa., who continued in charge of this department with Base Hospital No. 18 until the end of the war.

With the entrance of the American troops into the trenches Base Hospital No. 18 began at once to receive battle casualties and from this time on had a large share in the treatment of the wounded in the A.E.F. During the winter of 1917-1918, the American troops who were in the line were serving chiefly as a part of their training and were not called upon for any major offensives, consequently the number of battle casualties was relatively small, and the surgical work of the Hospital was composed in considerable part of civil or traumatic surgery rather than battle wounds. There was, however, a heavy incidence of medical cases, particularly those involving the respiratory tract, and the wards were full of soldiers with bronchitis and pneumonia. Among the pneumonia cases a good many developed empyema as a complication. These patients, however, as a rule, did much better than similar cases which were encountered in America in the training camps at this same time. The nature of the infection in France was evidently much less virulent than was the case at home where the mortality was astonishingly high.

The autumn and winter, until after January 15th, were characterized by the most prolonged spell of damp, cold and rainy weather that any of us had ever experienced. From the middle of September until January 15th, there was scarcely a day on which some rain did not fall and in the large majority of days there was a steady downpour. The hospital grounds, the surrounding roads and the whole countryside became a vast bog, and the effect upon everyone's morale was most depressing. There were also periods of severe cold which, combined with inadequate heating, made it very difficult to properly provide for the wel-



fare of the patients and the personnel of the Unit itself. At times the medicines and the dressing solutions on the wards would freeze solid; night after night it was difficult to keep the dressings from freezing on the patients themselves. The beginning of the year 1918 saw a change in the weather from raw and wet to dry and cold. This welcome change was reflected in the better health and spirits of the Unit and with the freezing of the ground and the falling of snow, a certain amount of relaxation in winter sports became possible. Sledding parties were organized and outdoor exercise was no longer rendered a nightmare by the omnipresent mud. With the coming of spring there came also the long-expected great German offensive. The tremendous drive towards Amiens was followed with the greatest interest and concern by the whole civilized world, in which feeling, of course, this Unit shared. Since, however, the impact of this drive fell upon the British and French armies almost entirely, and since its geographical location was remote from the area of the front with which Base Hospital No. 18 was in close rail connection, it made no direct difference in the medical work of the Hospital. The same is also true of the subsequent German attacks in Flanders and about Noyon, and although this was a period of anxiety in which everyone's nerves were held taut by the great events which were taking place, it was not until the Chateau-Thierry fighting that followed the successful thrust of the Germans toward the Marne that our part in the intense military activity developed.

In the meantime certain further changes in the personnel of the hospital staff were taking place, and Dr. George J. Heuer, on March 2, 1918, had been detached for duty as a special operator at Evacuation Hospital No. 1 situated in the Sebastopol Barracks which is outside of Toul. Capt. E. W. Bridgman was detailed for a special course of study in England on March 20, 1918, and after that time engaged in directing the medical work at Convalescent Hospital No. 2. Dr. Shaw also was assigned to duty with combat troops on June 2, 1918, and was attached to the 51st Artillery, C.A.C.Ry. In April, word was received from the medical faculty of the Johns Hopkins University that degrees in medicine had been granted to the thirty students who were serving as enlisted men in Base Hospital No. 18. Arrangements were then made by which these men were sent for a short course in military medicine to the Army School at Langres, France, upon the completion of which they were commissioned as first lieutenants in the Medical Corps, U.S.A. These various changes reduced the original personnel of the Unit very materially, but its effective strength was brought up by the addition of Hospital Unit A. This was a medical organization from Philadelphia under the command of Major Jopson of a type designed to augment the personnel of established base hospitals. The enlisted men, numbering forty-five, were a very great help in the running of the hospital and proved to contain a number of very



capable and intelligent members. The officers of this organization were very shortly detached from Base Hospital No. 18 and assigned to various other organizations, but the enlisted personnel remained with us until the end of the war. Besides this organization, at various times casual medical officers and men were assigned to Base Hospital No. 18. At a certain period in the development of the A.E.F. as a great organized army, it became necessary to find temporary quarters for casual personnel, and for this purpose many base hospitals were utilized as temporary stopping places for such casualties. Most of these men, both commissioned and enlisted, stayed only a short time and never took any active part in the work of the Hospital. There were, however, several officers originally assigned as casualties who remained on permanent duty at Base Hospital No. 18 and became an integral and important part of its personnel. Reference has already been made to Dr. John Singer, who during the most active working period of the Hospital was in charge of the X-ray Department. Dr. Louis Cassamajor, attached to the Unit on May 5, 1918, as neurologist and psychiatrist and afterward made consultant in these subjects for the group center, was also a permanent addition to our personnel. Dr. Louis King, assigned to duty on June 24, 1918, became a member of the medical service. Dr. John Young, from November 12, 1917, to April 16, 1918, was assigned to the X-ray Department. Dr. Frank A. Evans, Dr. Ernest duBray, Dr. John C. Lyman, Dr. Charles H. Watt, and Dr. George Dunn, all of whom were graduates of the Johns Hopkins Medical School, and who had come over early in the war for medical work with the British armies, were assigned to the Unit to take the place of the older men who had been detached for service as general consultants. Besides the changes in the professional personnel above noted there were several shifts in the administration. On July 15th, Lieutenant-Colonel Edwards was relieved as Commanding Officer by Major H. H. Van Kirk. On September 27, 1918, Major H. H. Van Kirk was relieved as Commanding Officer and Dr. Bertram M. Bernheim, who was the ranking officer then present with the Unit, automatically became Commanding Officer. This post he retained until November 20, 1918, when Major Van Kirk returned again as Commanding Officer, relieving Dr. Bernheim.

Similar changes had been taking place in the nursing staff; the climate, the working conditions, the mode of living, had proved too severe for a number of nurses, and Misses French, Michael, Atwood, Packard, Oliver, and Eleanor Jones had been sent back to America as physically unsuited to the further continuance of work in France. In addition to this, two nurses were detached as part of Dr. George Heuer's team at Evacuation Hospital No. 1. Casual nurses were assigned from time to time to fill the places thus vacated, some of whom stayed for only a few days and others became permanent members of the staff and remained with the Unit until the end of the war. Their names are as follows:

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ORIGINAL UNIT NURSES

Bessie Baker, <i>Chief Nurse</i>	Josephine Frazer	Fannie C. Michael
Ruth A. E. Adamson	Abigail Foley	Angele R. Millner
Annie Barnard	Corinna D. French	Madeline Moysey
Marion Beal	Neely Frierson	Eleanor L. Myer
Bertha Beers	Mary A. Goldthwaite	Elizabeth Nelson
Jesse Lee Berry	Isabel F. Grant	Evelyn Oliver
Gertrude I. Bunting	Maude H. Hall	Bessie W. Omohundro
Gertrude H. Bowling	Elizabeth Harlan	Helen S. Packard
Ruth Bridge	Celeste Janvier	Gladys Perot
Mary E. Bunting	Eleanor Jones	Marie L. Quigley
Emma E. Carter	Ethel Louise Jones	June A. Ramsey
Alice G. Carr	Nancy F. Keen	Agness M. Raymond
Caroline B. Chick	Lyda King	Mabel Reed
Jean E. Coons	Miriam E. Knowles	Ann S. Rogers
Claire R. P. Craigen	Theresa Kraker	Margaret W. Sayres
Ruth Cushman	Ruby I. La Bier	Margaret Sinclair
Eva S. Dean	Maye M. Liphart	Mary A. Shipley
Margaret Denniston	Mary G. Lyman	Pauline B. Stock
Katherlyn Ellicott	May M. McCandless	Olive I. Thompson
Helen Mar Erskine	Aline Mergy	Eurith Trax
Amy E. Faulkner	Agnes Meyer	Laura D. Venable
Bertha E. Weisbrod	Catherine M. Wright	

CASUAL NURSES PRESENT AT END OF WAR

Christine M. Adams	Helen M. Gainey	Rhoda E. MacVarish
Florence M. Baily	Estelle G. Hewitt	Annie McKay
Clara J. Farnsworth	Cazenova Lamar-Miller	Anna E. Manson

The nursing staff was at many times entirely inadequate in numbers to cope with the volume of work in the hospital, and in consequence was at times reduced to a dangerous condition of exhaustion. Their devotion and untiring industry never slackened, and they earned the well-merited appreciation of all those who were thrown in contact with them, either as associates or as patients.

The various changes above described resulted in bringing to Base Hospital No. 18, during the time from the early summer of 1918 to the fall, the period of greatest activity of the war, a considerably altered personnel, but with numbers

which were still about equivalent to its original strength. At this point it should be noted that Base Hospital No. 18 was organized on the old tables of strength which were designed to supply personnel for a base hospital with 500 beds. It was placed in a hospital which actually had 1,000 beds, and which was enlarged by tent expansion to a possible 1,300. No corresponding change in its strength of staff was ever made. With the beginning of the active and intensive engagement in large military movements by the American Army in the latter part of May and the early days of June, the strength of the Hospital was further reduced by the temporary detachment of surgical teams to the various forward areas to help in handling the vast flow of casualties which resulted from the greatly increased military activity. On the fifth day of June Dr. Bertram M. Bernheim, with Dr. John C. Lyman and Dr. Virgil P. Sydenstricker, Miss Harlan, Miss Bridge, and Sergeant Carter and Private Woodard, were sent on temporary duty as a surgical team. On the Fourth of July Dr. Harvey B. Stone, Dr. Wharton and Dr. William Happ, with Miss Cushman and Miss Thompson, Sergeant Scanlon and Corporal Brewster, were also detached on a similar mission. On July 11th, Dr. Harvey B. Stone returned to Base Hospital No. 18, and his place was taken by Dr. Charles Watt with the team. On July 15th Dr. Verne R. Mason, with Miss Stock and Miss Bowling and Privates Petre and Ryan, were temporarily detached as a shock team. It thus happened that through a considerable part of the summer of 1918 the officer staff of the Hospital was greatly reduced, particularly on the surgical side, and for a period of over one month there was only one member of the general surgical staff remaining at the Hospital. It was during this period which marked the beginning of the great Allied counter-offensive, the cleaning of the German salient between Soisson and Rheims, and the subsequent great thrusting back of the Germans out of Northern France, that the maximum activity of the Hospital occurred. The advanced hospitals soon became crowded to overflowing with wounded who had to be rapidly evacuated to make room for the succeeding admissions. Trainload after trainload of these men were sent to all the base hospitals along the lines of communication, and this Unit being situated in one of the most advanced hospital areas, received a goodly proportion of these cases. At the periods of greatest influx of wounded the evacuation hospitals were unable to perform even the first operations on many hundreds of cases, so that for two months or more, particularly during September and October, Base Hospital No. 18 acted as an evacuation hospital. The cases were received with no previous medical attention other than the first-aid dressing in a great many instances, and the character of the surgical work was precisely that of an evacuation hospital. The rapid accumulation of such cases made it impossible to retain them for any length of time, so that they were promptly sent further along the lines of communication.

to clear the hospital for the reception of fresh wounded. At this time the officers, nurses and enlisted men were divided so far as possible into night and day shifts, and for intervals of days and even weeks, the operating room was in practically continual use twenty-four hours each day. The enthusiastic, unfailing and intelligent service which was rendered by the entire staff of doctors, nurses and enlisted men will always be a source of undying satisfaction to all of those who were privileged to witness it, and who have interest and pride in the achievements of Base Hospital No. 18 at heart.

About ten days before the signing of the armistice, the stubbornness of the German resistance appreciably diminished. Coincident with this, the recovery of large areas of territory in the north of France had made possible the reopening of better railroad communication with the coast by direct lines. These two facts combined to materially reduce the volume of work coming into the hospital, and even before the armistice was concluded, there had been a very perceptible relaxation of the strain of work. On the cessation of hostilities, of course, the admission of freshly wounded cases stopped completely, and except for one or two convoys of patients who were transferred from more advanced hospitals which were being emptied in preparation for their movement forward with the Army of Occupation into Germany, there was very little work of any sort entering the hospital. At the same time efforts were being made to transfer back to America all patients who were so seriously injured or ill that their prompt and complete recovery was unlikely. As a consequence of this preparation, most of the patients in the hospital who required any active attention were evacuated toward the coast, and only a relatively few convalescents remained behind.

Then began the period of waiting for orders to close the hospital and begin the return trip to America. There were persistent rumors that Base Hospital No. 18 would be one of the earliest medical organizations to be sent home. The first official confirmation of these rumors came in the form of a telegram on December 21, 1918, ordering the Unit to prepare for transportation to the United States. The following weeks were utilized in transacting the many details necessary to prepare the Hospital for departure. Patients were evacuated as rapidly as possible, the property of the Hospital checked up and turned over to the proper supply officers, the personnel provided with the many official documents necessary before they could return home, and those possessions, personal and general, which were to be taken back, boxed and labeled; finally, on January 20, 1919, the Unit entrained from Bazoilles-sur-Meuse to St. Nazaire, France.

Three days and nights were spent on a French train with the usual discomforts of troop movements in France. Eating, sleeping and such washing as was done, all had to be performed in the same restricted space with many people

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crowded in together, but the fact that we were moving toward home went far to counteract the physical discomforts.

Upon arriving at St. Nazaire the nurses were sent to La Baule, France, to await embarkation, and the rest of the Unit was sent to Camp No. 1. On January 31, 1919, the officers and men boarded the *Finland* to return home. They sailed on February 1, 1919, and arrived in New York on February 14, 1919, just exactly twenty months from the day of departure from the same port on the same transport to St. Nazaire on the way over. A week was spent at Camp Merritt, N.J., awaiting instructions, and the officers and men were then transferred to Camp Upton, Long Island, N.Y. Here, with the exception of three of the officers, the Unit was discharged from the service on February 25, 1919. The nurses, who sailed later on the *Heridia*, did not arrive in America until February 27, 1919. They were sent to their homes on furlough awaiting final discharge, which was sent to them by mail.



FERRY AT NEW YORK

CHATEAU BAZOILLES

ANY chronological narration, concerning this subject, must, of necessity, be extremely disjointed, and based as much upon tradition as fact, owing to the complete destruction, during the hectic days of the first revolution, of all the archives, both ecclesiastical and governmental, of Bazoilles, as well as of the chateau itself.

Suffice it to say that from what scant authentic notes are available, Bazoilles was a flourishing city during the ninth century, at which time, it is reasonable to suppose, the original chateau, always the abode of the "seigneur," was in existence. The first obtainable mention of the actual chateau is a casual reference to the same contained in a church document of the eleventh century.

From irrefutable sources it has been ascertained that, prior to the city's destruction and its rebuilding as a village in the fourteenth century, there were two lords' estates, one large and one small, of which our home represents the vestige of the former. There were, as well, an abbey and a convent of Templars, the latter situated in a neighboring forest and the chimes of which were, at the time of its razing, thrown into a large subterranean source or branch of the Meuse called the "Ditch of the Bells." The remains of an old Roman road, running from Grand to Langres and Toul, and the crumbling abutments of an ancient Roman bridge may still be seen, nor far from the village, while the site of a large camp, dating from the time of Julien the Apostate, is thought to be the historic Roman station of Novio Magus. Certain it is that the surrounding country teems with places of historic interest, one needing merely to mention that Julius Cæsar is supposed to have fought a great battle near a neighboring village, while, it is reported, Charlemagne mobilized his great army at the adjoining town, Liffol-le-Grand.

In its hey-day, the village boasted a renowned forge, a windmill and a water-driven mill, as well as a large and productive farm belonging to the Abbots of Moremont.

Of the old city, the only traces are one of the wings of the church and a most antique dungeon and block-house. The latter was one of the terminations of a wall and wing of the feudal chateau, and reposes, as a pigeonnier, upon the lawn



of the present smaller but more modern edifice, which was not built until considerably after the last revolution, approximately 1845. Under this pigeon tower there is a subterranean passage, and it is still possible to define the masonry of a vaulted dungeon, to the very thick walls of which are fastened heavy rings, formerly used for fastening the manacles which were attached to the prisoners.

Many English visitors have aptly remarked the Anglo-French architecture of the present small but attractive building, and exclaimed upon the presence of the British lion, graven in the stone armorials of the facade. The owners were no other than the descendants of the well-known Drummonds of Scotland, who voluntarily accompanied their relative and king, James, into his tragic exile, and who have intermarried with many noble French as well as Scotch families.

In this Drummond family there have been two queens: Arabella, the wife of king Robert Stuart of Scotland, and Marguerite, who married James III of Scotland.

Probably the most brilliant representative, in France, of this illustrious family, was Charles Mackenzie Drummond, Vicomte and last Comte de Melfort, Lieutenant-Colonel d'Etat Major, Officier de Legion d'Honneur, Chevalier de St. Louis and of St. Ferdinand of Spain, etc.

The last owner was the Baronne de Melfort who endowed many charitable institutions in the neighborhood and who spent much more of her time than her ancestors upon her Bazoilles estate. The latter is now in the courts, the bulk of it having been bequeathed to the Order of St. Benedictine.

There are one or two romances connected with the place but space does not permit of their detailing. In the war of 1870, the village was occupied by the Prussians, and, it was during this time that one of the Baronne's sisters, the widow of a German, met some of the erstwhile officer-friends of her husband. She arranged a large dinner for the Prussian general and officers, much to the indignation of her sister and others of the family, who refused to attend, the upshot of it being that the Huns had a rather chilly reception.

To one who, as the writer, has tramped the surrounding country and, by interviewing and supping with them, gleaned from the peasants anecdotes and traditions of the various ancient communities in southern Vosges and northern Haute-Marne, there are so many items of interest that it is difficult to refrain from including some of them in these necessarily limited notes upon Chateau Bazoilles. At least, it would seem most incomplete to cease this rather disconnected sketch without explaining the apparently patois-origin name of the place. Bazoilles is derived from the Latin word basis, meaning lowland, and from the Gaulish word oye, or oies, meaning geese, the implication being that it is a fine place for geese. The name is appropriate! The "o" is pronounced long and the "ll's" are softened, in the correct patois.

SURGICAL SERVICE

THE administrative organization of the surgical service at Base Hospital No. 18 was so arranged that all the surgical specialties were intimately coordinated with the general surgical service, but in such a way as to interfere in the least possible degree with the independent freedom of each specialty. The same idea guided the arrangement of the surgical buildings. Thus in a single barrack, modified and added to as necessary, was housed the X-ray Department, the Sterilizing Plant, the General Operating Room, the Surgical Supply Room, the Eye Clinic, the Ear, Nose and Throat Clinic, the Dental Clinic, and the Dental Laboratory. The barracks nearest to this building were utilized as surgical wards, and the one immediately adjacent was connected by an enclosed corridor with the surgical building and reserved as a pre-operation ward. The operating room itself was converted into a single enclosure where all surgical work, general and special, clean or infected, was done. The principle of having several smaller rooms reserved for special types of operative cases was entirely abandoned. The single large room accommodated a larger number of tables, economized the time of nurses, doctors and orderlies, greatly simplified the storage and distribution of instruments and supplies and, facilitated by the absence of doors, passages and turns, the handling of stretchers. The theoretical objection to operating on clean and infected cases in the same room was not supported by a single actual incident in which harm came from this practice. There was no conflict of interest in the use of a single large operating room, since every doctor having a case to operate reported it to a single member of the surgical staff whose duty it was to arrange the operating program in advance.

The supplies of instruments and surgical materials were, generally speaking, adequate. The equipment of the hospital had been so well chosen by those entrusted with this duty before our entrance into active service, that only occasionally was it necessary to secure additional supplies.

The Unit contained among its personnel a number of highly trained and most competent surgical nurses, to whose ability and untiring industry was due in large part the unbroken smoothness with which the operating room functioned. The

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physical difficulties which occasionally arose, such as the tendency for moisture to accumulate on the skylights and drip down, and the erratic behavior which the steam sterilizing plant at times displayed, were due to the fact that the wooden barracks put up as emergency structures are not completely adapted to serve as surgical theaters.

Base Hospital No. 18 was in one way most favorably situated in the A.E.F. During the early months of the war the region about Bazoilles was used as a training area for the divisions of the original first army, the first, second, twenty-sixth and forty-second. At this time the surgical service was largely occupied as a camp hospital in treating the diseases and injuries that would naturally occur in a population of many thousands of young vigorous men engaged in great physical activity. Later, when the troops were moved into the line, the hospital began to serve as an advanced base, receiving cases that had been operated in the evacuation hospitals forward, and following many of them through to complete recovery. This was the period in which a rich experience was gained in the practical application and value of the developments in war surgery that had been worked out by our French and British colleagues. The problem of wound healing, primary, delayed primary, and secondary suture, dressings and antiseptics, were subjects that received absorbed attention and upon which clear personal conclusions were reached. The results obtained in shortening convalescence, diminishing loss of function, and reducing disfigurement were highly gratifying. Still later in the war when American troops in large numbers went into the most violent and protracted engagements, the work of Base Hospital No. 18 took on still another aspect. Being only about sixty miles behind the line, it was used as a reserve evacuation hospital, and as those forward filled up it received during September, October and November of 1918 convoy after convoy of unoperated casualties, and served as a first operating station for hundreds of cases. This again shifted the principal surgical interest to the primary operation or débridement of wounds, and to shock. As soon as the patients were sufficiently recovered to stand transportation it was necessary to send them further back to make room for the freshly wounded.

The surgical staff has fluctuated greatly both in number and personnel. Dr. Finney, Dr. Fisher and Dr. Baer, who came with the Unit, were relieved after a few months for service as general consultants, and the vacancies filled by securing Dr. Watt and Dr. Dunn. During the Chateau-Thierry fighting three surgical teams were busy at evacuation hospitals, and during one of the busiest times that the hospital has ever known there was only one surgeon on the general surgical staff. The specialists and medical men were acting as anesthetists and assistants and the orthopedic and genito-urinary men became general operators. Again during part of the Argonne fighting the staff was short-handed and were

hard driven by the pressure of work. For a period of several weeks there was a regular night and day shift of surgical teams and for days at a time the operating room was in use twenty-four hours out of twenty-four.

It is very difficult to estimate the results of treatment in an advanced hospital, since so many cases must be evacuated before the final outcome is certain. But in general there is reason to believe that the standard of work done and the results obtained were satisfactory.

The enlisted men who served as orderlies in the operating room became exceedingly valuable and efficient. They were changed from time to time so that a group of some fourteen men became trained to the duties of an operating room. In a similar way many of the nurses were put into the operating room for varied periods of service and became familiar with the requirements of war surgery.

This occasion cannot be passed without a word about the wonderful spirit of the wounded men. The fortitude with which they endured their injuries, the cheer and courage with which they faced their present and future trials, and the co-operation with which they supported the doctors contributed in many instances to securing unexpectedly happy results.



FERRY AT HOBOKEN

THE ORTHOPEDIC SERVICE

THE Orthopedic Branch of General Surgery was organized and established by Dr. W. S. Baer. A considerable amount of equipment, including a Hawley table, was brought from the States and this supply was later supplemented by the Red Cross and the Army. When the hospital was opened in July, 1917, the various splints, Balkan frames, Bradford frames and accessory apparatus necessary for the treatment of bone and joint conditions were assembled in available form upon Ward R.

Dr. Baer was summoned to the medical consultant office at Neufchateau in November, 1917, and Dr. Graves took charge of the work, remaining until July 4, 1918. Following the departure of Dr. Graves this branch was carried on by Dr. Geo. R. Dunn.

The work consisted of the classification and disposal of a large number of chronic bone and joint conditions which required a larger time of hospitalization than was practicable in this area, as well as the treatment of the fractures and joint injuries caused by battle wounds.

Early in June, 1918, compound fractures and various joint injuries resulting from gunshot wounds were admitted in large numbers. These cases were kept



ON THE FINLAND



DECK LIFE

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for periods of time varying from a few days to a few weeks. All wounds were treated with Dakin's solution or Dichloramine-T and, when possible, closed by secondary suture at the earliest date consistent with safety. Extension apparatus of one form or another was employed as the method of choice in the treatment of these cases. Movement was instigated at an early date in all joint lesions where practicable.

During the months of September and October, the cases remained for but very short periods of time owing to the demand for hospital beds in this area. In many instances merely a slight readjustment or reapplication of the splint was necessary. Many compound fractures were admitted, numbers of which had received no operative treatment—some of them arriving with first-aid dressing and splint as applied on the field.

It was possible at intervals to evacuate Class D patients to the sea ports for immediate transportation to the United States and the less seriously disabled soldiers to hospitals situated at points more remote from the front. A small group of cases of special interest or unfit for transportation were kept and practically carried to the completion of treatment.

THE ROENTGEN LABORATORY

THE books of this department show that the laboratory began operation November 1, 1917. The first observation made was a plate taken for a suspected fracture of the wrist, Miss Edith Trax, of our nursing staff, being the first patient.

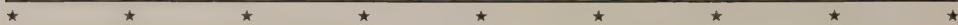
The difficulties encountered by Dr. Waters in assembling what has since proven to have been one of the best equipped Roentgen laboratories in the A.E.F. would no doubt be interesting, were he here to write of them. To his untiring efforts, however, have been due the successful operation of the laboratory.

The majority of work throughout this period did not vary greatly from that encountered in civil practice, with the exception of times when this Unit was acting as an evacuation hospital, as during the advance of our troops at Chateau-Thierry, Saint Mihiel and the Argonne Forest. At such times when we were acting as an evacuation hospital, the character of work was confined almost entirely to the localization of foreign bodies.

Our equipment for this class of cases consisted of an old type of Gaiffe coil, which, while antiquated and cumbersome, gave wonderful illumination on the fluorescent screen. Two methods only were used in localization of foreign bodies during these times. The Strohl and so-called "twenty-six degree" methods were used, the latter being especially useful for foreign bodies located within the pelvic cavity.

All preoperative cases passed through the Roentgen laboratory before being sent to the preoperative wards. Many examinations were made for suspected foreign bodies which were negative, the vast majority, however, having anywhere from one to one hundred foreign bodies present. One case in particular, which passed through the laboratory during the Chateau-Thierry action, contained by actual count, fifty-nine foreign bodies in the lower extremities and apparently had fully as many more scattered throughout various remaining portions of his body. The presence of all foreign bodies and their location was always reported. Frequently in cases where there were multiple small foreign bodies, such as in the case just cited, they were reported in group.

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On an average, the laboratory was able to make between eleven and twelve observations per hour, which proved to be, from the standpoint of speed, sufficient to keep a reasonable number of cases ahead of the surgeons. Foreign bodies were located in almost every conceivable spot in the entire body, as will be noted from the appended chart.

Many freak courses of machine gun bullets were noted in our observations, one striking instance being a case of a soldier who was hit by a machine gun bullet in the anterior, middle surface of the left arm. The bullet traveled up the arm, across through the tissues of the neck above the clavicle, missing the oesophagus and trachea, and traveled down the right arm to a position corresponding to its point of entrance on the opposite side, the point of the bullet being reversed, *i.e.*, upward.

Localization of foreign bodies in the eye were made by the Sweet method. Comparatively few localizations disclosed the presence of foreign bodies in the eye, our records showing but thirty cases.

Fractures were extremely common and, in the vast majority of cases, were compound. The appended chart will show the number of fractures together with locations.

Bone disease was extremely rare and consisted mostly of osteomyelitis and periostitis. Very few specific bone lesions were seen and our records show but three cases of sarcoma of the bone. Tubercular bone lesions were extremely rare among the soldiers, whereas, in the French civilian work, which came to this hospital from time to time, we saw a considerable number of cases, especially among children.

A large number of dental radiograms were made, the teeth of the men in the A.E.F. being none too good.

Perhaps the most interesting work done in this laboratory was in connection with the examination of the chest for pulmonary conditions. During the early spring of 1918 and the fall of 1918, opportunity was given us to study two types of broncho-pneumonia, the type occurring in the spring being such as is seen in the ordinary type of broncho-pneumonia; the type, however, seen in the fall being entirely different in many respects. The Roentgen picture seen in this type of broncho-pneumonia offered no particular difficulty in Roentgen diagnosis if seen at the end of forty-eight hours following onset. Previous to that it became extremely difficult and almost impossible to say, with any degree of accuracy, that a pulmonary involvement was present, and if present, whether or not it was a tubercular invasion. The characteristic sign, from a purely Roentgenological standpoint, was the coalescing infiltration which appeared, irregularly scattered throughout the lung with a tendency to appear nearer the hilus than the periphery. Such areas were always seen in this type of broncho-pneumonia and

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frequently extensive areas in the region of the hilus were seen, which might well have been mistaken for an early malignant condition. These dense areas did not give the Roentgen appearance of the density seen in lobar pneumonia, except late in the disease when these areas would appear much more dense. These coalescing areas were not seen at the periphery of the lung in any of the cases under observation in this laboratory. Peribronchial infiltration did not tend to run to the periphery or any part of the lung, except at the apices, at which point, we frequently saw both anterior and posterior apical bronchi involved. The coalescing areas referred to above were mostly seen in the dependent lobes.

The Roentgen findings reported as being coalescing areas of infiltration were frequently found at autopsy to have been accurately described as to location, but, on section of lung, found to be almost true abscess formations and had the patient lived, undoubtedly would have resulted in multiple abscesses scattered throughout the affected lung. A surprisingly few cases, as compared with the epidemic of the spring, developed empyema, the explanation of which may be that this type of broncho-pneumonia had a much higher mortality and the death usually occurred at a much earlier date.

Many of these cases, following convalescence, showed numerous small calcified areas usually seen in the inter-lobar regions, which were undoubtedly sub-pleural lymph nodes which had become organized. The Roentgen picture of such a type of pneumonia, in a well developed case, was most striking and gave positive evidence of the existence of a pneumonic involvement.

In connection with pulmonary examinations, surprisingly few cases of active pulmonary tuberculosis were seen. Perhaps the most interesting observation of all chest cases was that of an enormous pericardial effusion, of which Doctor Stone has reported.

The work in this laboratory was greatly facilitated by the cordial co-operation of the surgeons and internists, which existed throughout the entire activities of the laboratory.

The total observations made in this laboratory from its opening on November 1, 1917, to December 25, 1918, were 5,084. Of these 960 were negative.

INFECTIOUS DISEASES

WHEN the Base Hospital at Bazoilles was organized in the summer of 1917, Doctor Boggs divided the medical service into acute and chronic medical, and contagious. During the fall and winter of 1917, we were fairly busy as we were the only base hospital in this training area, and naturally we had our share of contagion.

As first organized, we used Ward K, which was divided by partitions into an observation department, a measles department, and two small rooms for meningitis. Ward J we used for scarlet. There was a fair amount of the latter, and during November and December, 1917, we were unfortunate in having cases among our own detachment. Among them were two fatal cases—Edward Linton, one of our students, who had been on a ward in which a scarlet had developed, and Miss Knowles, who was nursing on a medical ward. The cases were for the most part slight and the men only suffered from six weeks' isolation.

In January, 1918, we were informed that the hospital at Neufchateau would take the contagious cases and we would only have to take care of those developing in our hospital. On this basis we had Ward J remodeled to take care of all contagion, with a side corridor and cubicle-like compartments for observation, diphtheria, scarlet, measles, mumps, and meningitis, each separated by a partition with separate isolation. The ward was light until June, 1918, when we were told to take the contagious diseases of the entire hospital center (seven bases) except measles and mumps. The Red Cross had built porches for us, one for each compartment. With the use of these porches as overflow wards we have managed to get along, using K Ward for meningitis carriers and convalescents. We have been fortunate in having a very low morbidity among our Unit in contagious diseases, only a rare case cropping up—during the winter of 1918.

THE NOSE, THROAT AND EAR DEPARTMENT

DURING the first nine months of work at Base Hospital No. 18 by far the larger number of cases were patients suffering from diseases encountered in civil life. Owing to exposure and poor living conditions of the troops there were a good many respiratory infections with the usual throat, sinus and ear complications. Consequently there was much work for the Nose, Throat and Ear Department.

The equipment brought over was rather meagre but at the same time sufficient to handle all the ordinary things that came to hand. From time to time necessary instruments were added from the Medical Supply Depot of the Army and in the beginning by aid of the Red Cross Fund. At present everything can be done except intra nasal sinus work, and this can be cared for in a palliative way.

On August 3rd, four days after the first patients were received, the first operation under general anesthetic was an acute mastoid. Up to the time of the big drive when Base Hospital No. 18 functioned as an evacuation hospital, ten per cent of the operative work was done by the Nose, Throat and Ear Department. Perhaps a few figures might be interesting; during the first year, tonsillectomies, 125; nasal operations (local anesthesia, mostly septal work), 20; mastoids, 22; radical antrum, 5; foreign body nose, 1; foreign body œsophagus, 1; retropharyngeal abscess, 1; bronchoscopic examination, 1. The medical students assisted at all operations and in the clinic. A series of four lectures was given for them in addition to the instruction given in the wards and clinic work. The large variety of material especially in acute conditions afforded excellent opportunities for diagnosis and treatment. Of course, they had no experience in tuberculous conditions.

In general the work was divided as follows: operations and ward consultations in the morning; out-patient clinic in the afternoon; the attendance varied from five to fifty patients. During January and February, the out-patient department was particularly heavy. There was an unusually large number of cases of Vincent's angina and peritonsillar abscesses. There were a great many acute otitis

cases, too. Many French civilians were treated in the clinic, and frequent consultations made with the Red Cross hospital for civilians and refugees at Neufchateau, some operative work being done. The results were quite satisfactory on the whole.

A great deal of ear and nose work was done for the aviation service—both on the wards and in the out-patient department. During the past three months Doctor Edward Collins, of Philadelphia, has been attached on temporary duty and very ably caring for the work in this department.



THE CONVOY

HISTORY OF THE EYE DEPARTMENT OF BASE HOSPITAL No. 18

WHILE occasional minor ocular maladies presented themselves for treatment, no actual eye clinic was organized until the Unit's arrival at Bazoilles. In this connection it may be of interest to note that an eye case was the first to be admitted to Base Hospital No. 18, being an acute, monocular pemphigus conjunctivæ.

In the summer of 1917, owing to the lack of proper space for an eye clinic, and pending the construction of the dispensary building, the well-equipped French base hospital, Rebeval Barracks, at Neufchateau, was placed at our disposal through the courtesy of the Medecin-Chef and the Oculiste. By composing a schedule which did not interfere with that of the French physicians, advantage was taken of this happy arrangement, and patients needing refraction were daily transported, in ambulances, thither and back, for their tests, though inflammatory treatments were conducted in our own wards and operations performed in our own surgical amphitheatre from the outset.

Later, when the dispensary building was completed, a combined refraction and waiting room $22\frac{1}{2}$ feet by $8\frac{1}{2}$ feet and a dark room $5\frac{1}{2}$ feet by $4\frac{1}{2}$ feet soon proved all too small for the adequate handling of the work and the comfort of the two oculists employed therein.

During all this time, while the results with inflammatory cases were eminently satisfactory, the refraction cases were obliged to order their lenses, by mail, from private concerns in Paris, and at least six weeks were thus lost in the delivery of the lenses. Moreover, officers and men of constantly moving units often entirely failed to receive their frequently reforwarded spectacles.

In the spring of 1918, however, this situation was partially remedied by the addition of two more rooms, one $22\frac{1}{2}$ feet by $9\frac{1}{2}$ feet, equipped for two more refractionists, as well as for special examinations, such as perimetry, etc., the other, 14 feet by $11\frac{1}{2}$ feet, to house the Optical Unit. This latter organization consisted of a team of skilled opticians, sent from a group especially selected and mobilized in the United States, and supplied with quite a complete stock of lenses of various strengths and a uniform size to fit a standard spectacle frame, all being issued gratis to the patient, while a full set of appliances and tools for adjustments and repairs were included. Thus it was possible for patients to have the finished product handed them within ten minutes after the completion of

their refraction tests. In these quarters it was possible for three physicians to work with comfort, and, at one time, four carried on the clinic with reasonable satisfaction. But the clinic, drawing work as it did, from twenty-one base, thirteen evacuation, ten field, and five camp hospitals, besides three convalescent camps and thirty-three other large miscellaneous military organizations in the sector, and being the most advanced of the eye centers in France, grew by leaps and bounds so that it soon became necessary to move from the again cramped and insufficient quarters.

In the autumn of 1918, adjoining hospital barracks were put at our disposal and herein was constructed a large and ideally arranged eye center.

a. *Dispensary Building*—

1. Waiting Room, 31 feet by 11 feet.
2. Main Refraction Room, 22 feet by 18½ feet.

This room was equipped with four testing booths, the latter painted black and provided with heavy black curtains so that the dark room tests, such as oblique illumination, pupillary reactions, retinoscopy, and ophthalmoscopy could be conducted therein, and without removing patients and losing time, the curtains could be drawn aside and the distant refraction or muscle tests immediately carried on to completion, the latter two being controlled by individual electric switches directly at the examiner's hand. In this manner four oculists could be continuously employed at the same time and a volume of refraction work thoroughly and expeditiously handled, each booth containing complete equipment. As a further aid, two clerks' desks were attached to each of the side walls and the examiner's dictated remarks jotted down on the histories as the tests progressed, again saving much otherwise unnecessarily lost motion.

3. Optician's Room, 12 feet by 10 feet.

From here the patient entered one of two doors, standing side by side at the end of the room—one to the inflammatory room, the other to the optical department. In the latter were six trained opticians continuously employed on the making, mounting, adjusting, or repairing of spectacles. Here were well fitted benches, shelves, cabinets, etc., and a goodly stock of lenses and frames, while a clerk took charge of the mail orders and typed the optical correspondence.

4. Inflammatory Room, 9½ feet by 5½ feet.

Contained electric sterilizer, instrument and medicine cabinet, table, chair for minor operations, etc., and here the lesser medical and surgical treatments were conducted.



5. Special Testing Room, $9\frac{1}{2}$ feet by $5\frac{1}{2}$ feet.

In this room perimetric and scotametric studies were conducted and exceptionally nervous or ill cases examined, where, owing to the privacy, better results could be achieved in these instances.

6. Private History Taking and Refraction Room, fully equipped for two patients for officers and nurses, $22\frac{1}{2}$ feet by $8\frac{1}{2}$ feet, with adjacent dark room, $5\frac{1}{2}$ feet by $4\frac{1}{2}$ feet.

b. *Eye Operating Room.*

This was an excellently arranged room, $15\frac{1}{2}$ feet by $9\frac{1}{2}$ feet, containing all necessary equipment for any eye operation and unusually well lighted by two windows. In this connection it may be of interest to speak of the presence and constant employment of electro-magnets of these sizes: one so-called "giant," one medium size, and one very small. The operators working with these magnets in this eye center have secured gratifying results in the removal of intraocular, magnetizable, foreign bodies.

c. *Eye Ward, 16 feet by 20 feet.*

This ward contained 50 beds and six small rooms besides, each measuring $9\frac{1}{2}$ feet by 7 feet, and used for ward office, washroom, dressing room, supply room, kitchen, etc. All cases here were solely ophthalmic ones and there were always many eye cases, having other wounds or injuries, in the other surgical and medical wards, while all officer eye patients were kept on the officers' general wards.

Before closing a description of this eye center, it would seem well to mention the exceptional value, in the diagnosing of the rarer clinical conditions, of the proximity and close co-operation of the X-ray and the laboratory, besides, of course, emphasizing the general and special medical and surgical consultation which were always right at hand. The writer believes that it has made feasible the study and reporting of many exceptional cases which must, otherwise, and in routine civil practice, have been impossible. This, and the facility of securing the Surgeon-General's records of cases, and following up patients, has been the means of shedding much light upon many ocular conditions which have, in the literature obtainable in times past, been obscure in both ætiology and clinical progress.

Prior to leaving France, the clinic had built up to quite a respectable point, viewed purely from the angle of the volume of work done, the dispensary treating between fifty and seventy patients a day and the eye ward being, as a rule, well filled and overflowing into other wards, while the optical department received close to fifteen hundred prescriptions for glasses monthly.

DENTAL DEPARTMENT

THE dental department of the A.E.F. was born aboard the good ship *Finland*, under the supervision of Base Hospital No. 18, and there it earned the reputation it has ever since carried. All those toothaches at themorning sick call were lined up in the aisle above the galley on the starboard deck and there the boys were made comfortable to the tune of the swells of the Atlantic. It was the custom of the dental surgeon to scan the crowd, making his choice as to turns. The patient selected would be seated in the corner with the top of the rail as head rest, and in this position, with only a small kit of emergency instruments, the boys were given all the attention desired—at least until their troubles had disappeared. The novelty of this experience was that in fact it was the birth of the dental department for those who were to serve in the Amex—on the sea and in the midst of the gallant boys of the Eighteenth Infantry.

Fourteen days of such trials brought us to the harbor of St. Nazaire. It was here, under the supervision of Dr. Livius Lankford, one of the dental surgeons with Base Hospital No. 18, that the first dental clinic was opened for members of the A.E.F.—in Base Hospital No. 1. The dental operating room was immediately opened, and here for six weeks dental care was offered to all those serving with the American Forces who were stationed in that locality. This was the first dental clinic opened in France, and the service rendered was of such character as to call forth praise from all those who received attention—and the appointment lists were always taxed to their capacity.

At the expiration of the duty assignment at St. Nazaire, the clinic there was turned over to other dental surgeons, and the surgeon from Base Hospital No. 18 proceeded to the permanent location of the hospital at Bazoilles. This location being in the advanced section of the army zone, here again the honor befell us to open the first clinic for those members who served on the firing line and in the immediate vicinity. This clinic was opened on July 29, 1917, and from the start it was the plan to make Base Hospital No. 18 clinic the best in France for the the boys in khaki. As with the original clinic, so too at Bazoilles, we were always taxed to our capacity, and then the ever-increasing number of troops arriving

necessitated an addition. Plans were accordingly drawn up and matured, so that there would be plenty of accommodation for all. The need of a laboratory for prosthetic work was so rapidly developing that it was thought wise to include this also in an addition. In the installation of the new clinic, the most modern equipment was taken into consideration both from an operating room and laboratory standpoint, and we were fortunate enough to secure the necessary things for both. For some months this clinic was the only one in the locality and thus its service was shared by many from far and wide.

With the increased severity of the fighting, the clinic was offered some excellent opportunities in the care of face and jaw battle wounds. Concurrent with the installation of a group of six new hospitals, the need was seen for a facio-maxillary institution and this innovation was developed and supervised by the clinic at No. 18, the laboratory at No. 18 taking care of most of the splint and other such work for the group. The wards assigned for the care of this work were always filled with interesting cases and the work was developed to a very high degree. Charts and histories have been taken of every case treated, and very often photographs made, so that the work has been recorded in detail in the professional records.



JULY 4TH, 1917. SAVENAY

RECEIVING OFFICE

EARLY DAYS

WHEN the Receiving Office first came into being on the *Finland* with the appointment of a staff, no one had the most remote conception of its responsibilities and possibilities. There was little precedent in the experience of civilian hospitals to suggest what the Receiving Office would have to accomplish; and the representative of our army medical corps at that time, by refusing subsequently to sanction any measure that had not been in force in barrack hospitals during peace-times at home, proved that he had no understanding of the situation. There was also no stationery of any kind, no record forms for anything and no clear idea of forms to be improvised, no suspicion of what the problem of disinfestation of verminous patients was to be, no system for handling the clothes and property of patients. But the Receiving Office Staff on arrival at Bazoilles-sur-Meuse had taken over a ward building used by the French for the reception of patients, and one of the rooms into which this building was divided had a concrete floor and a wood-burning stove with water system that afforded five hot shower baths. It was thus—equipped with five shower baths and much enthusiasm—that the members of the first Receiving Office organization stood ready to learn from events.

A few days after arrival, July 31, 1917, the first patients came, a convoy of thirty-six in ambulances from the camp hospital of the First Division in training at Gondrecourt. They were all seen by the Officer of the Day, bathed, and sent to the ward. Their records were made out on paper salvaged from various sources and with pencils and pens contributed by members of the staff. Space will not be taken to recount the many interesting details of this first experience, such as to explain why each separate bundle of clothes was unrolled at least six times, or how the money and valuables collected from the patients for safe-keeping wandered around from place to place, once turned up under the bed of Doctor George Walker, who was then Adjutant, and finally were locked up in Doctor Guthrie's trunk. Suffice it to say that by bedtime of that day, the thirty-six patients had been admitted to the hospital and the staff was exhausted.



The Officer of the Day when these first patients were admitted was Doctor C. G. Guthrie. After having gone through the experiences of this day, he immediately delegated to himself the duties of a new position, that of Receiving Officer. With the organization thus under one head instead of the work being in charge of whoever happened to be Officer of the Day, and with plenty of opportunity to gain experience, progress, though not rapid, was constant. Subsequently, part of the building was shared with the Y.M.C.A., but the bathroom was jealously guarded and what rooms remained were more economically used. Stationery was bought, tentative record forms typewritten and tried out in practice, ledger books ruled, a system of recording property in a ruled ledger adopted, etc. At that time there was property accountability for each individual soldier and no "lost in action" allowance. Each soldier on discharge had to receive back each article deposited by him or pay for it; and he expected the return of his own clothes, even to the minutest detail. This made it necessary that each article be marked before being sent to the laundry, and this was actually done. Other similar difficulties were overcome by hard work, most of them arising in trying to carry out measures of peace-time organization subsequently found to be impracticable in time of war, and attempting to carry them out without even the peace-time machinery. Many more difficulties were about to be surmounted when the slowly dawning consciousness of the A.E.F. medical administration removed them by authorizing some measure requested long before.

ORGANIZATION AS BASE HOSPITAL

As the hospital became an established institution, it was apparent that efficiency and convenience demanded several functions of the Receiving Office organization. In addition to classifying the patients for assignment to wards and taking the necessary information for the hospital records, it was the opinion of the hospital administration from the beginning that all patients except those who were very ill should be disinfested and bathed when necessary at time of admission. It was also found convenient to collaborate with the Registrar's Office and the Statistical Department so that their record on each patient could at least be started in the Receiving Office. The students on duty at the Receiving Office carried on, under the direction of the Receiving Officer, a so-called dispensary practice from units in the vicinity that did not have medical officers, amounting to as much as eighty new patients in one day. They also had a so-called out-patient department among the French civilians of the neighborhood. Other than those in the Receiving Office there were no baths in the hospital and these were used for ward patients who could walk. Not infrequently, also, nearby units bathed there, all this being done on schedule by, and under direction of, the Receiving Office Staff. The collection of patients for discharge was more con-

veniently done by this office than another; and the running of the ambulances—before this function was taken over by the central organization for the group of base hospitals when established—both in calling for patients and delivering them to their units when discharged to duty, was under the supervision of the Receiving Office Staff. And lastly the functions performed by the "vestiare," those of receiving and storing, listing, mending, accounting for, and reissuing all of patients' clothing and property, both personal and ordnance, was done by this organization. Later, when personal accountability of the soldier was abolished and we were authorized to turn over to salvage in bulk all Government property including clothing collected from patients and reissue other clothing to them on discharge, it might perhaps appear that this work would more properly be done by the Quartermaster Department. But certainly the plan in force was always found satisfactory and before these necessary war-time measures were adopted, efficiency demanded that the "vestiare" functions be performed by the same organization charged with the admission of patients.

As the responsibilities of the Receiving Office organization were increased the staff had been enlarged from time to time by permanent assignments and by special details of men when large convoys were being admitted. At these times also the staffs of the Registrar's Office and the Statistical Department worked in collaboration with and as part of the Receiving Office system in getting their information. The original building was soon found hopelessly inadequate, and measures were considered for meeting this need. Dr. Guthrie, without any previous example by which to go, purely out of his imagination of what conditions in active hostilities would have to be met, and how to meet them, planned a building which fulfilled all subsequent requirements and had but few superfluous accommodations. Again space does not permit mention of the difficulties of supply and labor overcome to make this plant an accomplished fact. But, although never entirely completed according to the original plan, after seven months of squabbling for material and detailed supervision of labor, the final plant, a wooden shack 40 feet by 140 feet in dimensions, half of which was the original Receiving Office remodelled, was sufficiently weather-tight for use.

Details of the arrangements for the reception and discharge of patients singly or in small groups will be omitted. The staff had been organized and enlarged and the building planned to handle quickly large convoys of sick and wounded, both on stretchers and walking. Then four students or medical officers were on duty differentiating the cases and inspecting for contagious disease, venereal disease, and infestation with vermin. The staff, as augmented by special details of men from other departments associated in the work was composed, all told, of about sixty-five men. Some of these acted as clerks, some undressed the patients and handled clothes and property, some managed the baths, some acted as

barbers, and others as stretcher-bearers and ward ushers. The new building afforded twenty-two shower baths and six tables for disinfecting and bathing stretcher cases. By using all available floor space and racks along the walls devised so that stretchers could be piled one above the other, about one hundred and twenty stretcher cases might be stored at one time; and there was ample room for undressing and inspecting walking cases. Before the new system was put into effect and the enlarged quarters available, it commonly took eight, ten and even more hours to admit a large convoy, and in one instance where special difficulties were encountered, thirteen and one-half hours were consumed in admitting a convoy of 293 patients. With the new arrangement a much shorter time was required. For instance, on July 23, 1918, 200 stretcher cases, 112 of which were disinfested, and 211 walking cases, 165 of which were disinfested, a total of 411 cases, 277 disinfested, were admitted in four hours and thirty minutes. Again, on July 11, 1918, a convoy of 318 stretcher cases, 102 of which were disinfested, was admitted in three hours and twenty minutes. The special details of men needed to do the work thus rapidly, made a heavy draft on the detachment and seriously interfered with the other work of the hospital at these times. However, the support of Major G. M. Edwards, who was then Commanding Officer, and his interest in the problems to be faced, together with the willing co-operation of all members of the Unit, made it possible always to obtain the needed men. Although other work was interfered with for several hours, it was not necessary to keep all details the entire time consumed in receiving a convoy, and when a convoy had been admitted, the work was done and the whole hospital could settle down to its normal routine again. The patients had been undressed, bathed, disinfested, classified, and sent to the wards in clean pajamas and hospital clothes. Their valuables and money had been taken, listed, receipted for and deposited in the safe. The hospital records had been made and the work of both the Registrar's Office and the Statistical Department had been started. And the patients' clothes had been checked, tabulated and either sent to the sterilizer, or stored away prepared for reissue to them when they were discharged to duty, or transferred to another hospital. The disinfection on the wards was done away with, and the checking of clothes and making of records did not drag out over several days as formerly.

An integral part of the system was the work of the "vestiare." It had as equipment a ward barrack immediately adjoining and connected with the Receiving Office building. This was furnished with a numbered locker for every bed in the hospital, had a limited amount of storage space for new clothes, ordnance, and salvaged material, and in the end opening on the ward lane there was a room with bins for new clothes and a counter over which clothes were issued to patients leaving the hospital. For some time the requirements of a

system devised for peace-time barrack life and almost impracticable in time of war were met in spite of the great amount of needless work it entailed. Subsequently when measures adapted to war-time conditions were authorized, the work was done more promptly. The clothing of each patient was handled as indicated above, and all this work was done at the time of admission of the patient and was usually finished shortly after the reception of a convoy had been completed. Any unserviceable article of clothing a patient brought in with him was salvaged and a new piece issued in its place. Much of this salvaging, such as minor mendings, replacement of buttons, etc., was done in the vestiare by three French women employed for that purpose. Eventually, also, the replacement of worn-out clothes in the Base Hospital No. 18 detachment was taken over by the vestiare staff.

ORGANIZATION AS EVACUATION HOSPITAL

When in August, 1917, we were notified that Base Hospital No. 18 was to act as an evacuation hospital, it became apparent that radical changes of system were necessary. As additional work it had been decided that during those times all dressings should be removed, all wounds inspected and many dressed in the Receiving Office, and a few selected patients prepared there for immediate operation. Furthermore, the hospital staff was divided into two shifts, so that it might be kept running twenty-four hours a day for an indefinite period, and the emergency expansion of hospital capacity made greater demands on the personnel. The Receiving Office, therefore, as all other departments of the hospital, had much more work to do with many less men to do it. Accordingly, only minimal records were kept, this doing away with much of the clerical work, the disinfestation of verminous patients was given up temporarily except in special cases and the careful checking of clothes was not continued. For the reorganization necessary, Capt. C. A. Watt, who had worked at a British casualty clearing station performing the same functions, was consulted. He made suggestions that were carried out in detail and found satisfactory throughout. All patients were seen by one medical officer who sent the sick directly to medical wards and all wounded, whether walking or on stretchers, to the room formerly used for bathing stretcher cases. This room was supplied with materials for surgical dressings and here all dressings were cut down by orderlies and all wounds inspected by members of the surgical staff. The wounds of some patients were redressed and they were sent directly to the wards; and those of others were merely covered and the patient sent to the operating room, the pre-operative ward, or the X-ray department. All cases that had not as yet had anti-tetanus serum received it here. These new activities lengthened the time of admission for convoys, but there was no need for great speed, for with the new plan there

R E C E I V I N G O F F I C E

were no large emergency details of men that interrupted other hospital work and the Receiving Office was always far ahead of the work in the operating room.

EVACUATION OF CONVOYS

Not the least interesting of the Receiving Office problems of organization were those attendant upon handling large convoys of patients being transferred by train from our hospital to other hospitals further down the line. The names of the cases to be transferred were handed in to the Receiving Office by the ward surgeons, indicating for each patient whether he was to be evacuated on stretcher or sitting, and whether or not X-ray plates had been taken in his case. These names were then turned over to the Registrar's Office for the completion of their records and the preparation of the nominal transfer list, to the vestiare staff, which proceeded to outfit the patients, and to the X-ray department that it might prepare its reports and the plates to be sent with the patients to the next hospital. The hospital was then divided into two equal parts according to the distribution of the patients to be evacuated and a list of the patients in each half made out, listing the stretcher cases and sitting cases separately. Each list of stretcher cases was given to a sergeant in charge of a stretcher squad, and one half of the ambulances available were assigned to each. Before the loading of ambulances was begun, some cases were prepared on stretchers and while these were being started off, other patients were being prepared. As each patient was placed in an ambulance his name was checked on the list by the sergeant and when the loading was completed each sergeant returned his list with all names checked to the Receiving Office. While the stretcher cases were being sent away, the walking cases had been collected from the wards in the Receiving Office and from there were put into trucks for transportation to the train, each man similarly being checked off the list as he was seated in the truck. In the organization as an evacuation hospital no change was made in this system except that instead of the ward surgeons turning in lists of cases for evacuation, the Receiving Office staff made up its own list by going to the wards and taking the names of those patients marked for evacuation by the operating surgeon at time of operation.

Thus in brief were the possibilities of the "Receiving Office" worked out and its responsibilities met. In accomplishing this, the Receiving Officer feels that too much credit cannot be given to the non-commissioned officers in charge and the men who for longer or shorter periods were attached to the staff. Each one was loyal in his service and contributed much to enrich the experience of his associates. By reason of its several duties and central position in the administration of the hospital activities, the Receiving Office probably touched intimately more sections of the hospital than any other department; and certainly because

G E N E R A L H I S T O R Y

of the large number of men needed at times to carry out its functions, no other department had so many of the personnel of Base Hospital No. 18 outfit associated with it in its labors. It is these larger tasks that have been discussed more particularly in this little history, and the Receiving Officer has no hesitation in saying that any measure of success the department had in the discharge of these duties, is due wholly to the enthusiasm all the men of Base Hospital No. 18 contributed to any work to be done, and the whole-hearted co-operation obtained from everyone at all times.



SAVENAY

HISTORY OF THE NURSES

THE nursing staff of Base Hospital No. 18 was organized and mobilized in Baltimore, where most of us took the oath of allegiance on June 5, 1917.

The following day amid very little confusion we began the first lap of our journey, arriving in New York that afternoon.

After a period of three hectic days in which time we were equipped by the Red Cross, we were glad to find ourselves on the deck of the old *Finland*, upon whose life-belt boxes we made most of the trip to France.

Base Hospital No. 18 not being ready for occupancy when we reached France, we stayed one memorable month in Savenay, during which time we spent many tiresome hours drilling in the hayfield under the boiling sun and the watchful eye of our Commanding Officer, Major Heysinger. His attempts to teach us "squads right" and "squads left" will not be forgotten by his unwilling pupils, nor, one would fancy, by him.

The Fourth of July was celebrated on that same hayfield and we astonished the French civilians by indulging in such infantile pursuits as three-legged races, potato and wheelbarrow races. On our return from the field meet we were greeted by the population of the village and there was an exchange of felicitations between the Mayor and our Commanding Officer. The school children were present in a body and sang the "Marseillaise." In the evening the officers and nurses went to the City Hall where a banquet was served. Toasts were drunk and stories told until time for the fireworks to begin.

In the calendar of red letter days July 26, 1917, stands out, for it was on this date that our troop train pulled into the Bazoilles station where "Marse George Walker" stood waiting to conduct us to our hospital, after some forty-eight hours of travelling across France.

Immediately we began opening and equipping a few of our barracks, beginning with the ones we expected to use for surgery. Five days later we had the thrill of admitting our first patients, some few civil cases, very little different from what we had been used to at home. We settled down to caring for cases of this kind, with an occasional "blessé" due to the premature explosion of a hand grenade or to a stray shot on the practice field.





In early November we received our first wounded from the lines, the victims of that first trench raid, 16th Infantry boys, who had been holding the Toul sector.

It was in this same month that the nursing staff met with its first great sorrow in the death of Miss Miriam Knowles. By a strange coincidence, it was on the same date of the following year that we lost another member of our group, Miss Jeannette Bellman, who had been attached to us some months previously. Both our nurses were buried with full military honors, the whole Unit attending.

The winter was an exceedingly busy one for the nurses since there were admitted such a great number of pneumonia cases, both lobar and bronchial, besides a large quota of so-called children's diseases. Scarlet, mumps and diphtheria were with us constantly.

It was in the winter also that we first began getting large convoys, sometimes medical, sometimes wounded from the evacuation hospitals close to the lines. In March came a convoy of some two hundred and fifty badly gassed boys from the Rainbow Division, the largest number of gassed patients which we have ever received at one time. They required much care but the results were good.

From the Chateau-Thierry push in June came a convoy of Marines and Yankee Division men, more seriously wounded than any we had at that time seen. Our hospital was full to capacity, which was then about eight hundred. After a very busy period, the work slacked up again, during which time we evacuated all cases which could travel and enlarged in preparation for the expected drive in the Lorraine sector.

During this lull, the engineers completed the new barracks and on August 17, 1918, the nurses with all their goods and chattels took possession.

Our extensive preparations for the drive were found somewhat unnecessary, for the troops met with such slight opposition in their advance on the St. Mihiel salient that we received very few casualties. However, we had need for all our resources during the fighting on the Verdun sector and in the Argonne Forest, for we had been made temporarily an evacuation hospital and for a period of some weeks we were handling large incoming and outgoing convoys constantly. Our capacity was then about eleven hundred beds, counting the space in some tents which had been erected for overflow.

This was undoubtedly the busiest time in the history of our hospital, and we had the officer and nursing staff divided into day and night squads in order that no time might be lost, and that the cases might get prompt surgical care on admission.

Since the signing of the armistice there has been very little real work to do, so our time has been unprofitably spent in circulating rumors. The most persistent and the most pleasing of these is that we shall all be home early in 1919.

H I S T O R Y O F T H E N U R S E S

When we left Baltimore our staff numbered some sixty-five nurses and one dietitian. The latter and nine of our nurses have been returned home by the Disability Board, and twelve of the original Unit have been given transfer to other organizations. We have had quite a number of nurses attached from time to time, most of whom were detached after a short stay. At present there are fifty-three in our Unit.

We have had quite a number of visitors during the year, many of whom were old friends of the Johns Hopkins Hospital. Among them were the Princess d'Hennin, the Bishop of Erie, Dr. Herbert Adams Gibbons, Miss Elsie DeWolfe, Mrs. Mary Roberts Rinehart, Dr. Hugh Birckhead, Mr. Frank Kent, and Dr. Woods Hutchinson. Our most frequent visitors are General Finney, General Thayer, Colonel Young, Colonel Boggs and Colonel Fisher.



THE TRIP UP TO BAZOILLES

MEDICAL STUDENTS' COURSE

THE training of the fourth year medical students who came over with the Johns Hopkins Unit may be described briefly under two headings:

1. Clinical work on the wards of the hospital, and in the operating room and laboratory.
2. Lecture courses covering in the main:
 - a. The practice of general medicine and surgery.
 - b. The organization and administration of the Medical Corps of the Army.
 - c. The special problems pertaining to troop sanitation in and out of the line, evacuation of wounded, and, in general, the duties of battalion medical officers.

1. When the hospital was first opened for the reception of patients, one or more students were assigned to each ward. There was some uncertainty at first as to just what their duties would be; it was a question in the minds of some, particularly those of the old army, as to the advisability of letting a private (for such the students were) attempt to do any part of the work formerly done in the army hospitals by officers. In a comparatively short time, however, this question was settled, and under the general direction of Dr. Finney and Dr. Boggs, and under the direct supervision of the hospital staff, the students took up their work on the various medical and surgical wards.

As to the exact nature of this work, it may best be described by saying that the students served as junior internes in the hospital, working under the supervision of the ward surgeons. In the operating room they served as anesthetists and assistants. In the laboratory they served as assistants. The routine laboratory examinations of the hospital were done here by the students under the direction of Dr. Walter Baetjer. The staff of the hospital made every effort to give the students the training they considered essential for medical officers. Ward rounds were given by the chiefs of the various services, and included cases from the general surgical wards, orthopedic wards, genito-urinary wards, infectious and general medical wards, and wards caring for eye, ear, nose and throat cases.

2. a. In the lecture course the subjects were treated according to a definite schedule, the lecturers being members of the permanent staff.

M E D I C A L S T U D E N T S ' C O U R S E



Surgical

Orthopedic—Dr. Baer and Dr. Graves
General and Abdominal—Dr. Stone.
Central Nervous System—Dr. Heuer.
Vascular System—Dr. Bernheim.
Gynecology—Dr. Wharton and Dr. Shaw.
Ear, Nose and Throat—Dr. Slack.
Eye—Dr. Whitham.
X-ray—Dr. Waters.
Medical Administration in the Army—Lieutenant-Colonel Edwards, M.C.
Dental—Dr. Brum.

Medical

General Medicine—Dr. Boggs and Dr. Guthrie.
Chest Diagnosis—Dr. Sydenstricker.
Skin Diseases—Dr. Guthrie.
Contagious Diseases—Dr. Happ.
Diseases of Children—Dr. Happ.

b. and c. These subjects were presented in a course at the Army Sanitary School at Langres, France, and included lectures and demonstrations given by the heads of many of the clinical and administrative departments of the Army. The course was a most comprehensive one, and to Lieut.-Col. George M. Edwards, M.C., who was at that time Commanding Officer of Base Hospital No. 18, and who made this training possible for the students, and to Col. Baily Ashford, M.C., Commandant of the School, a vote of thanks is due.

The students were graduated in April, 1918, the fact being announced by a cable from Dean Whitridge Williams to Dr. J. M. T. Finney. The following month, after the course at Langres, all were commissioned as first lieutenants in the Medical Corps and sent to a casual officers' depot at Blois, France. From this depot they were sent out into their new work.

In conclusion it is the desire of the writers to voice for the Base Hospital No. 18 Section of the 1918 Class of Johns Hopkins Medical School a sincere appreciation for the loyalty of the entire staff of the hospital to our group. Were we to mention the names of those to whom we are grateful, it would result in an enumeration of the names of all the officers who came to France with the Unit. They believed in the plan under which we came to France; through their influence it was put upon a practical working basis; and through their efforts and influence, its conclusion, the training and commissioning of thirty members of the class in April, 1918, was realized.

THE ENTRANCE



WELFARE WORK

THE Y.M.C.A.

THE story of the Y.M.C.A. of Base Hospital No. 18 begins with the establishment of a canteen by Capt. Bertram M. Bernheim, then the Detachment Commander. In the month of October, 1917, Dr. W. C. Coleman became General Secretary. The canteen quarters were enlarged, a writing room was established, canteen service increased, and some facilities for entertainment provided. Mr. E. C. Carter, General Y.M.C.A. Secretary of the A.E.F., visited the hospital and made arrangements for the erection of a permanent building. An agreement was made with the American Red Cross whereby they were to pay the expenses of the erection of the building and the operating of the building was to be undertaken by the Y.M.C.A. This arrangement became permanent. Dr. Coleman, having obtained the material and secured the co-operation of the 101st Engineers, the building was formally opened late in December, 1917.

Dr. Coleman was an ordained minister, and at the request of Major Finney (now Brigadier-General) became Chaplain of Base Hospital No. 18. Dr. Coleman continued as Y.M.C.A. Secretary and Chaplain until June 1, 1918, when he was relieved by Ray E. Hunt as Secretary. Dr. Coleman having been transferred to another field of labor, on invitation of Lieut.-Col. George M. Edwards, M.C., Mr. Hunt succeeded Dr. Coleman as Chaplain. Mr. Hunt continued in this relationship until the departure of Base Hospital No. 18 from France. Other associate secretaries who have served with credit for a considerable period of time are Dr. Samuel Polk, Dr. H. H. Harmon, Lewis A. Gilbert, Philip E. Ward, and Dean S. Fansler. Other secretaries have served for a shorter period of time.

The activities of the Association may be separated into the following groups: Entertainment, Athletics, Educational, Canteen, and Religious.

After the opening of the permanent building, it was the intention of the General Secretary to have some sort of entertainment or public meeting each evening of the week. During the days when the hospital was filled with patients, a matinee would be held for patients in the afternoon or early evening with a program for the hospital personnel at night. The American Red Cross equipped

the building with an excellent motion picture machine. Film programs were obtained from the Red Cross Service in Paris on Wednesday and returned the following Sunday morning. This made the cinema available for use during four days of the week. Members of the Overseas Theatre League under the auspices of the Y.M.C.A. frequently visited the building. An excellent stage had been constructed, making the presentation of short plays and vaudeville very easy. Most prominent among our entertainers were Elsie Janis, two appearances, the Craig Players in "Baby Mine," and the "Jeanne d'Arc Pageant," and the Convalescent Minstrels in three performances. Many other concert parties deserve mention, if space would permit. Several local talent entertainments, usually under the direction of Major Lucien B. Brun, D.C., and Sergeant Harold Tuthill, were presented.

The Association encouraged athletic sports. An athletic field adjoining the hospital ground was leased for these activities. On July 4, 1918, an athletic carnival was staged in which other units composing the hospital center competed. The Association provided baseball equipment, football, basket-ball, and tennis equipment to the extent of its ability.

The educational classes of the Association were not largely attended. Courses in beginning and advanced French were available. Five classes in French were organized. Classes in beginning and advanced mathematics were offered under the direction of Mr. Philip E. Ward.

The canteen was an important activity of the Y.M.C.A. At the request of the local quartermaster, and in order to relieve congestion in his sales department, all articles sold by the local quartermaster were placed on sale in the Association building. Supplies from the Y.M.C.A. warehouse were available and a very good canteen stock was maintained. A wet canteen where soft drinks and sandwiches could be secured was maintained for the greater part of the time. In addition to the selling activities of the canteen, a bank department was maintained for the cashing of checks and money orders, and the forwarding of money to America. A total of the amount of money thus handled is not available, but frequently was more than five thousand francs per day. A library of six hundred volumes was in constant circulation. A great amount of writing material was distributed gratuitously.

The Association of Base Hospital No. 18 was noted for its religious activity. It had the distinction of being the only building in the Neufchateau area in which a morning and evening religious service were conducted every Sunday. Father Thomas A. Dinan, Catholic Chaplain, very frequently used the building for religious purposes. Episcopal communion services were conducted on the first Sunday of each month. Interdenominational communion services were conducted on the third Sunday of each month. Public preaching services, at which

the attendance was voluntary, were held at 10.30 a.m. and 7.30 p.m. each Sunday. In addition to the religious ministrations by the chaplains in the wards, many personal conferences were held with members of the hospital personnel. Many renewals of religious vows were made, and several persons were baptized on confession of faith.

The Association was regarded by religious leaders as being exceptionally well balanced in its program and successful in the accomplishment of its purposes. It always enjoyed the confidence and the support of the commanding officers of Base Hospital No. 18.

CATHOLIC ACTIVITIES

Following the invitation of the Commanding Officer, I will run through briefly the salient features of my work among the patients and personnel of Base Hospital No. 18.

My connection with Base 18 as Catholic chaplain dates from January 31, 1918, when I arrived here as Red Cross chaplain. For seven months prior to that date I had been doing ministry at Paris in the congested workingmen's district, and for several years previous to my coming to France I had done priestly work in Rome and other parts of Italy. It was, in consequence, with some slight misgivings that I followed the prospect of beginning my American ministry—not indeed in America, but in France, for though I am an American myself I had never yet addressed an English-speaking audience, till I found myself in Bazoilles-sur-Meuse among the American soldiers.

My welcome at Base 18 was most hearty. The first to greet me was Capt. William Prescott Wolcott, of the American Red Cross, who at once set about making me acquainted with the various officers and nurses of the Johns Hopkins Unit. The delicate kindness of Captain Wolcott, multiplied many times since that day, shall never be forgotten, nor will I ever forget the warm welcome tendered me by Captain Stone, the adjutant. His friendly grasp and cheery words made me feel right at home. Then began my real work among the patients and personnel of the hospital; and while speaking of the personnel there is one feature to which I want to draw particular attention, and it is a feature of which I have twice spoken publicly, namely, that the Protestant boys of the Unit seemed more attentive and kind to me than a goodly number of my own Catholic boys. It was this friendly spirit on their part which did more than anything else to put me perfectly at my ease from the outset. What I say of these boys I can say with equal justice of all the officers of Base 18. I always felt that I had a personal friend in each of them. More than once I was much embarrassed by the prompt personal attention given to some request in connection with my ministry. One instance stands out prominently when Captain Lyman quit his ward despite my

protestations to arrange once for all a certain prerogative of the company office. Such hearty co-operation and sincere manifestations of good-will enabled me to work harmoniously among the men, so that my visits to the wards every day were among the most pleasant occurrences of my life. I grew to know each individual patient, for Base 18 was then in reality a base and not merely in name, though later war needs necessitated its being used as an evacuation hospital. I was a member in one big family—officers, nurses, personnel and patients formed but one big whole. I learned to admire the unstinted devotedness of officers and nurses to their patients and this was notably brought out in the trying rush occasioned in all the hospitals in the heavy drives at the front. The crowds of wounded and sick brought into Base 18 were systematically handled in able, logical order, for Base 18 was equal to the task, both as a real base hospital and as an evacuation hospital.

My own personal work called for regular visits to the wards, where I was warmly received by all the patients, Catholics and Protestants alike; my heart, as every true priestly heart, was large enough to love them all. Many of the Protestant boys said: "I'm not a Catholic myself, Father, but I'm always glad to have you come around." And what shall I say of my intimate ministry among my Catholic boys? Nothing could have been more consoling. There were many days when I spent practically consecutive hours hearing confessions in the wards, for the percentage of Catholics was always very high among my sick, and then I would have to be up bright and early in the morning to bring them holy communion. Those were decidedly happy days for me. My first American ministry has been all that could be desired and though officially attached to Base 18 for a good period, I could extend my priestly efforts to Base 116; and when their own priest came, I had assigned to me Base 42 and Base 46. Base 42 has recently passed from my care to that of Father Nuwer, but Base 46 still shares my interest with Base 18. Within recent date from being a Red Cross chaplain I have become a regular Army chaplain, but my relations to Base 18 have in nowise changed. It will be a pleasurable recollection for me to look back on the days spent at Base 18 in the company of such staunch, friendly officers and nurses and equally staunch, friendly enlisted men. I know they have all won my unlimited affection and I feel that I have won theirs. May God's blessing attend them all wherever they may be.

FATHER DINAN.

AMERICAN RED CROSS ACTIVITIES, U.S. BASE HOSPITAL NO. 18

The first Red Cross Hospital representative at Base Hospital No. 18 was Dr. Meil, who was only able to remain a few months owing to family illness at home. He was succeeded by W. P. Wolcott, who has remained with the Unit

W E L F A R E W O R K

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up to the present time. The duty of the representative is to see that the hospital is furnished with all the Red Cross supplies, necessities, comforts and so forth, and generally to look after the needs and welfare of patients. Under him was, first, Miss Gailor for about six months, and then Miss Wheeler. These ladies were "searchers" for the Red Cross, whose duties are to hunt up, among the wounded and the sick, men who have been reported missing, or for whom inquiries have been made from their families; to write letters for the patients who are not able to write themselves; to distribute tobacco, Red Cross bags, and many other comforts.

The Red Cross erected and furnished the large recreation hut in which the Y.M.C.A. conducts, with the co-operation of the Red Cross representative, social activities for patients and enlisted personnel of the hospital; it also furnished the moving pictures, which have eight performances during the week. It has erected and furnished a club for the nurses where the Unit holds its dances, also a small building for the officers who are patients, where they now have their meals served, instead of as formerly on the ward, and also has put up four roofed piazzas in conjunction with the contagious ward, where patients suffering from contagious diseases are able to get out of doors.

The Red Cross feels that, even greater than the good it has done by giving away tons of goods, is what it has done for the morale and mental state of the sick and wounded; and it has been a help and an inspiration to its workers always to receive the co-operation and welcome of Base Hospital No. 18.



THE CHATEAU

SPORTS

ALL work and no play makes Jack a dull boy," even in the Army. It is doubtful whether any Army organization was ever so completely occupied that its men could not get out and play some of the time. As a rule, in the Army, one is apt to run to extremes; in times of stress one is pushed almost to the breaking point, while in times of ease there is scarcely enough work to keep a fellow out of mischief. It is in such slack times as these that out-of-door sport come to the rescue and save one from suicide or going A.W.O.L.

Base Hospital No. 18 started to enjoy itself as soon as it reached France. At Savenay, in June and July, 1917, when we had no patients and were only a military outfit with nothing to do but turn out the guard and turn in the morning reports, we celebrated the Fourth of July by a field day, in which Hank Shaw and Miss Chick won the handicap mixed wheelbarrow race, while a couple of French high school boys ran away from our fastest sprinters in the dashes. The French children were immensely amused at some of our games that day, notably the potato race, the egg race, and the sack race. On that date, moreover, we played what was probably one of the first baseball games among the American forces in France.

From July till September, 1917, there was very little for the sporting editions of Base 18, because those of us who were down in St. Nazaire were too few, while those up at Bazoilles-sur-Meuse were too busy getting established in our new home. There never was a time, however, when we couldn't get up a game of "stud," or roll the bones—African golf.

September, 1917, marked the date of the first real sporting event for us in France. It seems that a short time before this, "Heinie" Cave, the pride of Paducah, had been successful in interesting a few friends of his from the Roosevelt Hospital, of New York City, in the war and had brought them over to France and settled in Chaumont, about thirty miles from Bazoilles. Having hired a few majors and one colonel to work for him, the first thing he did was to challenge the officers of the Hopkins Unit to a baseball game, as a fitting ceremony attending the establishment of his hospital in France. While G.H.Q. S.O.S. may not have ranked as a classic, the contest which resulted, nevertheless, Base 18 carried off whatever honors there were, and all that Heinie Cave and his followers got was a good dinner party and a dance that night. Base 18 also established its reputation that day, and was henceforth known as "Fighting 18 of Death Valley." In this game Dr. Finney played first base, George Heuer

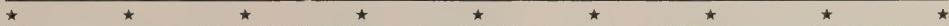
second, Evelyth Bridgeman third, Buck Waters short stop, Cy Guthrie, Walter Baetjer and Bernie played in the outfield, with Bennie Kline and Hank Shaw as the battery. For valor in the field, Dr. Finney was promoted to the rank of brigadier-general, Ev. Bridgeman was put in charge of a convalescent camp, George Heuer was ordered to an evacuation hospital and Buck Waters was sent home. While some of these orders required months to go through G.H.Q., this was the last game in which these officers took part. This was one of the first baseball games played at Bazoilles in 1917.

Winter came on rather abruptly and fall sports were cut short. Rugby football was not even attempted, and except for a game or two of soccer played by our enlisted men among themselves, long walks became the order of the day. The winter was very severe, with days of snow and zero weather. This we took advantage of, and enjoyed ourselves by coasting on home-made bobsleds down the Neufchateau hill, with its double curve. Harry Slack and Ev. Bridgeman had mild cases of shellshock after colliding with a tree on one of these parties—otherwise there were very few casualties to mar the pleasure.

While the winter was still in full sway and frost-bitten toes and fingers were still the universal badge of service, preparations were under way for what would probably have been the greatest society event in the A.E.F. In the Vosges, wild boar hunting is the *dernier mot* in sports, indulged in only by the elite. As a matter of fact, it is the common herd who do the real hunting, while the quality folk get the credit and also the boar. The first essential to a good boar hunt is a pack of well-trained boar hounds. Now a boar hound is not a distinct entity; just as there are various species of wild boar, so there must be corresponding types of boar hounds. In fact, any hound dog that will catch a wild boar or show interest in the case is capable, under proper coaching, of developing into an excellent boar hound. So the first thing to do was to get a well-trained pack—then for the chase.

Cy Guthrie was master of the boar hounds. As soon as it became noised abroad that a pack was to be assembled and trained, applicants began to appear. Among them were "Charlie," the big Belgian police dog owned by the Commanding Officer, Lieutenant-Colonel Edwards; "Baz," the blue chow, from the kennels of Major Baer; "Vanda" and her eleven pups, owned by Mr. Wolcott of the Red Cross; "pauvre Zazza" with her six children, blooded French bulls contributed for the event by "Boo" Mason. Because Mason's dogs looked so much like little pigs, however, they were ruled out of the boar pack by the Committee on Qualifications.

Canines of every creed and breed were in the pack; big black, bobtailed, woolly ones like Boris, formerly a French cow-dog; dogs that believed in chasing rocks, like Dick, the "cur de Lyon"; little spotted, fuzzy dogs, like Aix, that lived on beetles; Taps, Jacques, Ninette, Rintintin, and finally old Ludendorff,



a captured dachshund, that required considerable persuasion to enable him to see the virtue in chasing the wild wiener in vivo. Altogether a pack of twenty-five or thirty dogs were on the register. It was really an open question whether Base Hospital No. 18 could not properly be called the Hopkins Kennels.

Then suddenly we realized that we were in the Army. The pack had been well trained; Cy Guthrie was about to be mentioned in the orders of the day for his meritorious conduct. But the pack was not all in uniform, and furthermore, the Q.M., Lieutenant Clark, raised the point that there was "nothing in the regulations" that would authorize a boar hunt. Then several of the members of the pack began to show signs of weakening. Boris, the proud leader, came under the influence of the Hun hound, Ludendorff, and both went A.W.O.L. Aix disappeared mysteriously and Baz committed suicide in Neufchateau. As a disciplinary measure, in accordance with orders from the "Group Center," most of the rest were either drowned, shot or chloroformed. Thus the vision we had entertained vanished, and the big boar hunt with Miss Baker as mistress of the chase and Bernie riding Napoleon at the head of the pack of baying hounds, was never to be. Base Hospital 18 therefore had to look elsewhere for amusement.

Since we couldn't raise dogs, we raised wild animals. As a beginning, the boys in the Receiving Office adopted Oscar, a young wild boar. Then Miss Baker charmed the nurses by attempting to civilize a goat; but when Dr. Wharton presented himself one day with a wild porcupine named Genevieve, and a field mouse, and Miss Anne Rogers came home with a young eagle, the peace of the menagerie was so disturbed that it also was disbanded.

During the cold winter evenings, music appealed to some of us. We had no piano, but by scouting around managed to gather some instruments in Nancy. Buck Waters, as wary as ever, was well provided—about the only military equipment of any sort he possessed was his banjo. So we organized the "Buzzards' Band," the original members of which were Benny Kline and Bernie, mandolins, Buck Waters and Lloyd Whitham, banjos, and Lawrence Wharton, guitar. Later the band was augmented by the addition of Walter Baetjer playing the "sweet potato" and cymbals, Bruno playing the piccolo and doing Nubian dances, and Hank Shaw riding the mouth organ. We played for some of our dances on Saturday evenings and thought we were good. The troubadours, however, led an adventurous life, and it must be admitted music was not always a safe avocation at Fighting 18.

Taken as a whole, the picture of the sports during the winter of 1917-18 at Bazoilles was rather cubist in conception and iconoclastic in perpetration.

The year 1918 was full of both work and play. Early in the spring, during moments of leisure, the boys commenced to toss the baseballs around. During the months when the American forces were most busily engaged, July, August,

September and October, it was out of the question to try to play ball. But early in the summer and after the armistice was signed, Base 18 became a family of out-of-door sports.

The enlisted men had four baseball teams, the regular first team, the students' team, the Unit A team and the Goldfishes. The officers also had three teams, the hospital team, the lieutenants' team and the captains' team. In addition to numerous games played between these teams in our own unit, a large number were played with visiting teams.

By the summer of 1918, Bazoilles had developed into a large hospital center, with seven hospital units in the valley, and others in the near vicinity. In addition, detachments of engineers and line organizations were stationed near us. Out of all these outfits, a baseball league of enlisted men's teams was organized, and a regular schedule of games was played. In this association, our team fought its way to the top. On the Fourth of July, we played with Evacuation Hospital 6 the game which was to decide the league championship. Unfortunately, we lost not only the game and championship, but also beaucoup revenue—so much so that Base 18 was in a state of bankruptcy for weeks to come.

The officers' team was somewhat more fortunate financially. There was no real fixed schedule; we challenged anybody that came along and played them, providing that it didn't rain. Our chief rival was Base Hospital 116, situated across the Meuse River from us. We won most of our games, and closed the season in September by beating Base 116 soundly, allowing them but one hit. The lineup of the team was: Watt, 1b.; Slack, Evans, 2b.; Porter, 3b.; Colston, ss.; Guthrie, Baetjer, Happ, Du Bray, King, fielders; Wharton, Kline, Shaw, Colston, batteries.

But the gala events of the baseball season were the big game with the Roosevelt Hospital at Chaumont, and the Captain-Lieutenants game at Bazoilles. We had already defeated Heinie Cave and Co. twice, both times at Bazoilles. This time we attacked them in their own lines. Heinie Cave was ready to the nth degree. Sergeant-majors had been commissioned, casual X-ray men drafted, and for three weeks before the game Captain Cave had had his braves doing double time on the diamond—to beat us. Before the game we marched to the field at the head of a parade one-half of a mile long, brass bands, the entire personnel of the Roosevelt Hospital in formation, wild animals from the Roosevelt menagerie, a camel from South Africa, a llama from South America, Uncle Tom's Cabin on wheels, a darky with a pack of blood hounds on leash, the Oriental snake charmer—they were all there—and they beat us. After the game our consolation was a dinner and dance.

The climax of the season for the officers was the game between the Captains and Lieutenants. The only superiority the lieutenants had ever granted the

captains was their larger salary, and in this game they proceeded to extract that. At the outset it seemed as if there would be no game at all. Du Bray passed nine lieutenants in the first inning, while Benny Kline, "The Epernay Kid," fresh from the caves of Moet and Chandon, held the higher officers to a safe figure. Then Captain Bernheim, clad in his ptotic pantaloons, entered the box, and for eleven innings the game swayed to and fro, being tied 13 all in the ninth inning. Finally, in the thirteenth inning, the lieutenants pushed across the run that made them wealthy and cheered the hearts of the fair nurses admiring them. It is estimated that Captain Weller, the versatile quartermaster, playing center field, muffed enough items without memorandum and receipt to make him poor for life. After the game festivities ran into the early hours, the captains paying the bill. What happened the next day is duly recorded in the official records of the A.E.F. It was another hard day for the captains.

The lineup of the teams was as follows:

CAPTAINS—Du Bray, Bernheim, p.; Baetjer, c.; Watt, 1b.; Evans, 2b.; Colston, ss.; Bernheim, DuBray, 3b.; Weller, Singer, Guthrie, field.

LIEUTENANTS—Kline, p.; Shaw, c.; Happ, 1b.; Slack, 2b.; Wharton, ss.; King, 3b.; Lankford, Brun, Whitham, field.

The football season of 1918 was short and snappy—three weeks' practice, two games without our goal line being crossed. We defeated the X-ray School on November 16th, 20–0, and then on Thanksgiving Day took one last punch at our rival, Base Hospital 116, with the score 6–0. Both games were well played, the Thanksgiving game being fought with intercollegiate bitterness. The line-up of the football team was: Jakobi, center; Garcia, left guard; Woodard, left tackle; Borthwick, left end; Tindall, right guard (captain); Shewell, right tackle; Webber, right end; Moore, quarterback; Mellor, Griffith, fullbacks; Hess, Kelly, right halfbacks; McCouch, Harrison, left halfbacks.

Substitutes: Tracy, DeWoody, Argabright, Nixon, Owens, Holmes. Coach: Harold F. Tuthill. Manager: Captain Wharton.

Lieutenant Morgan and Captain Michael assisted in the coaching and played part of the Thanksgiving game.

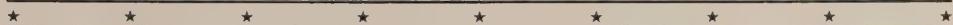
The successful close of the football season of 1918 was celebrated by a dinner for the officers given by the men on Saturday night of Thanksgiving week. The dinner marked the last formal feast of Base 18 in France. We had worked hard for a year and a half, had established the first hospitals of the A.E.F., both at base ports and in the advance zones, had served the troops from Ypres down to Belfort, and at the last football dinner, with the music of the trumpets of the 78th Field Artillery Band, sang with real meaning, "Hail, Hail, the Gang's All Here." The American soldier always carries his baseball and football suit with him, and as he plays, so he fights—to win.

HISTORY OF ENLISTED MEN

WELL, Captain Bridgman, you can sign me up for the big show." Thus shouted our future Private Cassidy of the Amex. The scene was the lobby of the Johns Hopkins Hospital, Baltimore, and Captain Bridgman was telling a large crowd of Baltimore boys the disadvantages of joining the then Hopkins Unit—volunteers and among the first to do a bit against the Hun. The boys were all eager and anticipating just such a trip and there was little or no trouble in filling our quota. After taking the oath, half a dozen or more assemblies were necessary to talk over matters and get the several inoculations. The proposition of going to war was thoroughly thrashed out among the fellows and we were earnestly advised to take only pajamas, a tooth brush, and the check book. The baseball outfits, tennis outfits, libraries, and other useful comforts and sports were promised to be brought along by the Unit and placed at our permanent location for the opportunity and advantage of the boys during their leisure hours.

Accordingly, all set, on June 6, 1917, at about 11.30 p.m., we departed from Camden Station over the B. & O., loaded with suit-cases and other luggage for the trip. The last opportunity for real American bonbons was taken advantage of, and they were passed around freely in the coaches until our arrival at Jersey. There was little sleep gotten on the journey. Tasty sandwiches were served in the early morning at the station and our hunger fully satisfied. After this hasty sort of breakfast we were hustled in the immigrant room on the pier and there proved an object of much curiosity. We were a hundred and thirty some in number. Passersby declared us anything from army deserters to strike breakers—we were comfortably lolling around on our baggage with now and then a merry chance or the slap of a card passing away the time. At mid-day we crossed the river and were installed in "Mills Hotel." Here we passed some pleasant days of anticipating and saw much of Greater New York.

Soon our turn came for boarding a transport and accordingly we proceeded to the pier and the *Thomas R. Fatton* conveyed us to the transport *Finland*, lying in the upper harbor. The first night aboard the *Finland* was quite a jolly one—making ourselves comfortable and learning to hold our feet on the water. We were just as anxious to make the acquaintance of the crew as the crew was to



share our friendship. Mandolins and guitars were brought out and practically every member of the Unit and crew who were at leisure gathered on the ropes about the forward mast, and getting comfortable, the fun began. School ditties and popular airs were welcomed by all. The roundness of the evening was finally accomplished by many deep sea tales delightfully told by members of the crew. Bonbons donated by the nurses were thoroughly enjoyed. The few days following and before the anchor was raised for the voyage to Europe, the boys were busying themselves in making their quarters comfortable—the second deck in the forward hold where tiers of bunks had been arranged one over the other. During these days of inactivity many rumors were circulated and the boys' spirits kept in a high tone of anticipation looking forward to the deep blue sea.

Associated on the *Finland*, there was also part of the 18th Infantry, and on the trip over the time was pleasantly passed by boxing matches and interesting tales put forth by the doughboys. A part of each day was given over to military instruction and an hour's pace of promenade deck kept each member in good physical shape.

After we arrived in France the troops were disembarked and Base 18 proceeded to Savenay. A baggage detail was chosen, and some twenty or thirty were left behind to look after the baggage of the Unit. The boys arrived at Savenay just in time to make themselves acquainted with the townspeople and participate in the celebration for the Fourth of July. Athletic games, speeches and fireworks at night marked our first celebration in La Belle France.

Practically the whole time for the immediate present was taken up with military instruction and discipline. Prolonged military drills were held each morning and afternoon under the supervision of our first sergeant, who from the date of his appointment had easily won the respect and admiration of each member of the organization and who continued to hold the good will of all throughout our entire stay in France. Guard duty and "K.P'ing" was about the only worry of the boys during their month's stay at Savenay. We were comfortably fitted up in an old schoolhouse with from eight to sixteen in a room. The evenings were never minus a bit of jest or good humor and in this way we all became good friends. Many of the boys took advantage of the passes that were issued and saw quite a bit of the beautiful surrounding country, some going as far as Nantes, about thirty miles up the Loire River valley. Being practically the first American soldiers in this neighborhood, in almost every village visited, our welcome was extremely courteous. Most of the time it was a question of dodging invitations of individual hospitality and seats at the dinner table.

A month of this life at Savenay and orders came for our removal to what was to be our permanent location, Bazoilles. All packed, we proceeded to the station and six men were assigned to each compartment of a third-class French passenger

coach. Our rations for the trip consisted of the favorite "bully beef," canned jam and hard tack. The trip across France under such conditions was extremely delightful and the boys took every advantage of the scenery. At every town where the train stopped, the commissary in the station was immediately mobbed and the boys toted off all they could find that was edible and all the post card views of the surrounding country. Quite often at the stops there were pretty French girls who donated coffee, tea or chocolate and other light refreshments. Being the first American soldiers to traverse this territory our welcome everywhere was a most cordial one and the trip proved to be very profitable from the standpoint of acquiring a good French vocabulary.

The twenty men who had preceded the main body in order to make ready the quarters, were at the station to greet us when the train pulled in. With three hurrahs the train was emptied and the army greetings took place. Marching up through the town to the hospital was more or less of a review for the townspeople. Here again the reception was all that was expected. We soon made ourselves at home, both in the quarters and with the French soldiers who were assigned about the town. One of the first things in the mind of all was to take advantage of our leisure time and learn something of the interesting surrounding country. Domremy, the birthplace of Jeanne d'Arc, was the most favored, and being within nice walking distance of the hospital, there was always a party on the road working up an appetite for those famous beans. Athletics were mildly under way, and they occupied considerable effort from the stars. At the very beginning the townspeople practically held open house for the boys of Base 18, and, of course, wherever there was a piano so were some of the boys.

The winter of 1917-18 found us well settled down and no matter how inclement the weather, we were always comfortable in our barracks, the only exception being that after a walk through the snow and in laying our shoes by the side of our bunks, the next morning they were generally frozen to the floor and required five minutes' hard work to make them usable for reveille. Big bobsleds were made and a snow hill running through the town was always kept in good repair and was always enjoyed to the limit by all who cared for this sport. Another pleasing pastime was to go over the hill and watch the bombs explode which were dropped by the boche airmen in the locality.

The big Y.M.C.A. hut was ready for occupation during the Christmas holidays. A big dance with plenty of music and other entertainments marked our Christmas, 1917. On New Year's Day the hut was formally opened by the secretary, Mr. Coleman, and it was always a place where you could find most any sort of amusement. The most popular entertainer who visited the hut was our dear old friend, Elsie Janis. She carried such a big hit with the boys of 18 that they one and all declare they shall never miss one of her performances in the



States. In the early summer of 1918, the secretaryship changed hands and Mr. Hunt, the new secretary, from the very beginning, enjoyed a high degree of popularity among the boys. Mr. Hunt continued to act as secretary until Base 18's departure from France.

With the summer fairly under way, the sporting issue took new life. Several tennis courts were built and many games were played—nigh only putting a stop to the pleasure. Baseball remained king and those who lived in our famous "Death Valley" were responsible for the keen competition between the several teams of the hospital. A word here might be said in the interest of "Death Valley." Mayor Ashley headed this organization and it was soon found necessary to engage the services of a skilled sleuth; Detective Murk Smyth was brought into play and his shrewdness was soon made manifest in unearthing some of the plots and scandals that were current at that time. The brilliantly edited "Death Valley News" was the result of this organization. Bev Dunning was responsible for this publication and it is due to him, through the columns of his journal, that the moral of 18 was never questioned. Intensive training for the different ball teams and the rooters' club was the order of the day. We feel most of the credit for the success in the championship series was due to the nine who were always on hand and were willing to sacrifice anything for the stake. But at the same time too much cannot be said in backing up this wonderful organization. Most of the boys, of course, went broke in the Fourth of July game with Evacuation 6; this was our only calamity. Almost immediately at the close of the baseball season the wounded began to arrive in big numbers. Decisive battles were being fought in the front lines. We, too, felt the need of sacrifice, and all hands pushed together in the strenuous time that followed and overcame every obstacle, and so smiled at hard work that we felt all the praise and admiration from those above us were well earned. The football season was at hand almost before we realized it. With only a few weeks' practice we jumped in and beat the two best teams in the valley. The game with 116, played on a mud field, was well fought, and it was only through considerable effort that we came out on top. All played a wonderful game, but honorable mention should go to Captain Tindall, Harrison, and Weber. Harrison's run across the enemy's goal line along with Weber's interference brought them both fame. Everybody got a pretty good haul out of this game and the proceeds were invested in the making of a big dinner at which all the officers were present. Wild boar headed the menu; there were many after-dinner speeches and a delightful little dance marked the evening.

This dinner practically marked the close of the hard-work days at Bazoilles. Especially on the day of the armistice, there was a let-up with nothing to do but celebrate. In the evening the whole company of us formed a parade and, headed

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by trumpeters and color-bearers, marched all through the town and visited each of the group hospitals, letting everyone know in a most enthusiastic manner that it was Base 18 approaching.

Rumors began to circulate as to our early return. This, of course, tended to raise the spirits of the boys, and created a hustle and bustle in the "getting-ready" program. Finally the order came through to prepare and everything was got in shape for our departure. There never was a more happy bunch to leave a port in France than those of Base 18. Amid the au revoirs of the village, we marched down through Cow Lane and a waving of flags and some sad goodbyes—for some of the boys were well known in Bazoilles.



OFFICERS' QUARTERS



THE CROSS ROADS

HISTORY OF HOSPITAL UNIT A

IN April, 1917, soon after the United States had entered the war, the Presbyterian Hospital, of Philadelphia, Pa., set itself the task of organizing, equipping and supporting a medical unit for service overseas. The call strongly appealed to many prominent surgeons and physicians, who were at the time connected with the hospital. Several other institutions throughout the city were organizing base hospital units, and it was therefore decided that a small mobile unit which might be used in any emergency, from that of a field hospital to the operating of a hospital train, would be more acceptable to the Medical Department at such a time. Dr. John H. Jopson, one of the most prominent surgeons of the city, was selected to head the undertaking. Dr. Henry P. Brown, Jr., assisted Dr. Jopson, and it was he who recruited and organized the enlisted personnel of the Unit. With untiring effort, Dr. Brown labored day and night in the forming of the Unit, questioning each candidate and making a careful physical examination of all applicants. Toward the end of May, 1917, advice was received to prepare the Unit for service, and from a total of more than three hundred names, forty-four men were to be selected; the number permitted for a unit of this type. On June 4, 1917, the following named men were administered the oath of allegiance and sworn in for duty:

Edwin I. Atlee, Jr.	Claude S. Hampshire	William I. Shewell
Harold L. Blancher	Charles A. Hartman	John A. Stewart
Frank W. Borthwick	Richard H. Helm	Percy P. Teal
James A. Brewster	Harry R. Hess	William E. Tindall
Calvin W. Brice	Marion F. Johnson	Jacob K. Tryon
Willian V. Brown	Thomas B. Longhurst	Patrick P. Wade
David B. B. Buchanan	Clarence G. Mecouch	Frederick R. Walters
Philip F. Coleman	Rowland F. Mellor	Norman B. Ward
Lorin D. Cunningham	Don G. Meredith	Walter C. Weber
Thomas A. Doris	Raymond B. Murray	Brant S. Wheeler
Winfield S. Downs	Frank B. McGowan	George C. Wheeler
Herbert H. Fellows	Edward S. Newton	William H. Wilcox
James F. Roberts	Paul Otter	George W. Winaur, 3rd
George R. Gross	Edmund J. Purdy	Thaddeus W. Wright
	Walter W. Savage	

H I S T O R Y O F H O S P I T A L U N I T A

Twelve officers were assigned for duty with the Unit with Major Jopson in command, First Lieut. Albert G. Mitchel as Adjutant, and First Lieut. Ralph W. Walker in command of the detachment. The nurse corps of twenty-one nurses was headed by Miss Kate Liddle, of Columbia Hospital, Wilkinsburg, Pa.

Soon after the organization of the Unit was completed, Dr. Brown was called for service at Fort Oglethorpe, Ga. From then on he became separated from the work he had undertaken, and shortly received his majority and was ordered to Camp Upton.

Contrary to expectations no further orders were received and the summer passed on without the Unit being called into active service. During this period, William V. Brown, James F. Roberts and Thaddeus W. Wright were released to enter other branches of the service, and the following men were enlisted: James B. Dulles, Louis C. Foell, Carl P. Marlow, Willard M. Clark and Horace E. Teter.

On November 6, 1917, orders to mobilize were received, and on November 9, 1917, the officers and men proceeded to Fort Porter, Buffalo, N.Y., where they were put through two months of intensive training and equipped for field service as a mobile unit. During this period the following non-commissioned officers were appointed: First Sergeant, Edwin I. Atlee, Jr.; Drill Sergeant, Rowland F. Mellor; Company Clerk, Corporal Philip F. Coleman, and Acting Mess Sergeant, Corporal Horace E. Teter.

The Unit left Fort Porter on January 10, 1918, and proceeded to Camp Merritt, N.J., where it received its final inspection. On January 15, 1918, it was embarked on board the British steamship *Carrpathia*, and left New York harbor the same day for duty overseas. It was a memorable trip. The first halt in the journey was at Halifax, N.S., where our steamer awaited the rest of the convoy. Two days later we were joined by seven other transports and a cruiser as escort and the voyage recommenced. The men were introduced to active work immediately. Major Jopson was appointed Transport Surgeon, the care of the sick and the sanitation of the ship being under his immediate control. Three wards were opened and some of the men received early initiation into the duties of wardmaster, and the work of orderlies. There were over two thousand troops on board, representing almost all branches of the service, and considerable sickness had to be cared for.

The day before we were due to arrive, the convoy was surrounded and escorted by a number of small destroyers during the passage through the danger zone, and on January 30, 1918, the journey up the Clyde River was completed and the steamer docked at Glasgow, Scotland. Boarding a train at this port, the Unit arrived the following morning at Winchester, England, where it remained at this British rest camp for four days. Crossing from Southampton we glimpsed at daylight on February 4, 1918, the shores of France for the first time.

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While at Le Havre, all of the officers who had accompanied us this far were detached, except Lieutenant Mitchell, who was left in charge, and then we all realized that our organization as an individual unit was soon to lose its identity. We proceeded from this port two days later to Bazoilles-sur-Meuse. After experiencing travel of an unpleasant nature for many hours our destination was reached, and marching up the hill from the station, through the gate and into the grounds of Base Hospital No. 18, the last stage of our journey was complete.

The arrival at Base Hospital No. 18 will always remain on our memories as a cause for joy and thankfulness, the first feeling of physical relief we had experienced since leaving England. To partake of a warm meal once more and to rest at night upon a real bed were pleasures we had not anticipated. Unit A had found a home. Not a home of comfort and plenty alone, but a home of comfort and good cheer for the strangers who had come to take their part in the struggle with those who already had made an enviable record in their service to humanity and the world.

Shortly after our arrival some of our officers joined us, but their stay was temporary and it was not long before they secured other assignments. Major Jopson, who took up his duties at Evacuation Hospital No. 1 at Sebastopol, later became Director of Surgery at that hospital with the rank of Lieutenant-Colonel.



BACK VIEW OF WARDS

TRIP OF SURGICAL TEAM No. 11

SURGICAL TEAM NO. 11 had its station at Base Hospital No. 18, A.E.F., and was composed of the following personnel: Bertram M. Bernheim, Captain, M.C.; First Lieut. John C. Lyman; First Lieut. V. P. W. Sydenstricker; Miss Elizabeth Harlan and Miss Ruth Bridge, Nurses; Alexander Carter and Alva C. Woodard, Orderlies. On June 3, 1918, we were hurriedly ordered to report to the Division Surgeon of the Second Division at Meaux and from June 5th, the date of our arrival, until August 7th, the date of our relief, we served continuously at the advanced hospitals for seriously wounded—such institutions being placed as close as possible to the actual battle line in order to better handle the so-called non-transportables, or those cases which were unable to bear transportation back to the evacuation hospitals, which, as a rule, were some fifteen miles or so in the rear of the advanced hospitals.

It is sad to relate, though, that the first hospital we worked in, at Jouilly-sur-Seine, was not very advanced—on the contrary it was some twenty-five miles or so in the rear of the fighting line. But it was the *only* American hospital at that time between the line and Paris and as such handled the non-transportables. Furthermore, occupying but one wing of a large convent boys' college, its total bed capacity at the start was but two hundred and fifty, so it was hardly more than a few hours after wounded began to come in that the place was full to overflowing. And not only this, but the little group of surgeons of whom we were a part, were hopelessly swamped with work of the most ghastly type imaginable from the very first. But it must be remembered that those few days were perhaps the most critical days of the whole war. Paris was not simply threatened, Paris was in imminent danger, and disaster was about to fall upon the allied cause. So, in order to strengthen the line, in order to give courage to troops already sorely tried, and showing, perhaps, a tendency to waver, Marshall Foch hurriedly threw into the battle line the Second Division of the American Army. The entire movement was executed with such suddenness and rapidity that the Medical Department knew nothing of it till the troops were actually in battle. So our little hospital at Jouilly-sur-Seine, which was so ably commanded by Captain

Charles Mixter, of Boston, tried to stem the awful tide of wounded men as best it could. For about twelve days and twelve nights this hideous spectacle continued. Toward the end of that time Evacuation Hospital No. 8 came in alongside of us and relieved the situation to a degree, but the worst was over by the time they arrived. It is, of course, well known that the Second Division was made up of the 5th and 6th regiments of Marines and the 9th and 23rd regiments of infantry. They blocked the Hun path near Chateau-Thierry and taught him a lesson at Belleau Woods that he never forgot—and they incidentally showed the world just what kind of stuff the American fighting man is made of. The conduct of the wounded was inspiring to us surgeons, never a whimper, never a question, always a supreme confidence in us and thanks for what was done. This made it all the more trying for us because we knew how little was really being done for them; we were quite aware of our own unpreparedness, unavoidable though it was.

The Hun was finally stopped in his tracks, but it was quite apparent that it was only a question of time before he would launch another onslaught. So thousands and thousands and tens of thousands of American troops were hurried into the region—and this time the Medical Department came into its own. Hospitals of all sizes and types were got up, equipped, staffed and held in readiness, a little advanced hospital for non-transportables being established at La Ferte-sous-Jouarre, just a few miles back of the line. Indeed, this hospital was started before the first show was over but it did not function properly until later on. We moved up to it on July 5th and were there when the famous offensive started on July 15th. Up until that time things had been very quiet in the line and work was only of an intermittent character. With the Hun thrust, however, and our own counter, things broke loose and from then on it was a constant drive by day and by night. The wounded came in by the hundreds, ambulance trains seemed never ending. All seriously wounded such as abdomens, sucking chests, the terribly shocked and the bleeding were sorted out, retained and operated on by us, the remainder, and of course, by far the majority, being sent on to the evacuation hospitals in the rear.

The underlying idea of an advanced hospital is not only to afford early and prompt operation to the desperately wounded but to provide a stopping place for them after operation, until their condition improves to such an extent that they may be evacuated. This plan we attempted to follow and did as far as lay in our power. There were four regular operating teams (occasionally two more), and by dint of constant hard work our preoperative tents were kept fairly well cleared. But our bed capacity was but a scant two hundred and soon gave out, so in order to make room, certain cases, that under ordinary circumstances should never have been moved, had to be evacuated, and a certain number of lives were lost as

a result. Again, however, it must be remembered that these were actual war conditions and such conditions do not permit of a perfect arrangement concerning such matters. As a result, however, of this experience we recommended that no advanced hospitals in the future should have less than five hundred beds and that if possible the number be one thousand. The suggestion was, we found, followed in certain instances later on.

The allied counter-offensive was a joyous success from the very start, and, as a consequence our little advanced hospital became less and less advanced as the days succeeded each other and as our troops advanced. So along about July 24th some casual medical officers came in to care for our patients while we packed up our belongings and went forward ourselves—this probably being the first time a hospital of the A.E.F. had advanced. Chateau-Thierry had already fallen and it had been intended for us to move in there, but conditions were so indescribably chaotic and filthy as to render the shell-ridden city unfit as yet for human habitation. So our tents were pitched at Villiers-sur-Marne, around the chateau made famous by Mrs. Francis Wilson Huard in her well known book, "My Home in the Field of Honour."

The chateau itself is not very large and was in a terrible state of filth and need of repair, but we managed to set up our operating room and one or two small wards on the lower floor, while the nurses and staff camped out as best they could on the two upper floors. All other personnel and wards were housed in tents set up wherever there was space available. But from the very start this poor place was overwhelmed; indeed, it never had a chance. Being quite close to the line at first and far in advance of all other hospitals—for a time it was even forward of the triage station, which was at a little town called Bazu. So in order to avoid the confusion resulting from this unusual situation Bazu was closed and we acted as the triage or sorting station ourselves. And how those wounded did come in! By ambulance, by truck, by Red Cross cars and Y.M.C.A. camions of all sorts, the lightly wounded at times riding on the tops of the cars, on their fenders and even, believe it or not as you choose, an occasional man would come in riding on the hood, so great was the stress, so limited, comparatively speaking, the transportation available for the wounded.

And our poor personnel were so overworked. By day and by night did they slave and at times it was impossible even to unload the ambulances; they would simply stand in line waiting their turn to pull up and discharge their burden. Nor was this all of our trouble. According to the system in vogue for bringing wounded away from the field of battle, those cars of transport from battle area to triage comprise a unit which upon discharging goes immediately back for more, leaving the transportation from triage to advanced hospitals to another unit, and from here to the evacuation hospitals still another ambulance company did

the work. We subscribe to that system; the only trouble was that there was a general shortage of ambulances and conveyances of all sorts that was so marked that for hours and hours at a time it was simply impossible to evacuate our wounded even after they had been sorted. Under such circumstances when there is a bed capacity of about two hundred and fifty and the incoming wounded of one twelve-hour period number over a thousand (as happened not one day but many days) one can imagine what happened. The men sat or lay around on the ground, anywhere they could. The seriously wounded we operated on promptly, of course, and as far as lay in our power found cots for and held them. But here again stress of the occasion compelled us repeatedly to send out men who ought never to have been sent.

There were only four operating teams here and usually we were very hard pressed to handle the seriously wounded. But whenever there was a lull in these cases we pitched in and did the lightly wounded who were awaiting transportation to the rear, because every battle wound, it matters not how slight, becomes increasingly dangerous in proportion to the length of time between its reception and its treatment by a surgeon. So we did all we could.

But there were other features worthy of mention that contributed to the unsatisfactory episode at Villiers—features purely of a military nature, but which none the less affected us—and to our sorrow. All roads were packed and jammed at all times with camions filled with troops, with cavalry, with bicyclists, with ponderous artillery, all moving forward and all in a hurry until at times there came a jam which caused a lengthy stand still. But above all else, the ammunition trains—and they were of interminable length—had precedence. So that not only was evacuation from the battle areas and evacuation from our triage terribly difficult and well-nigh impossible—especially was it slow and dangerous at night owing to the fearful condition of the roads and the absolute ban on all lights because of danger from constantly lurking avions—but the food situation was at all times most precarious. We were able to give all wounded hot chocolate day and night, and this was a blessing, for there was little else fit to eat for days—for wounded, operated men, personnel, nurses and doctors. The only favorable feature in the whole show was the weather, which was in the main very pleasant and for the most part clear.

So that it was most fortunate for us that our line was rapidly advancing, so rapidly, in fact, that by the second or third of August we were so far back that the *carry* became too great and it was decided to close the place. By this time other hospitals had moved into position all along the line, several being in Chateau-Thierry, which had been cleansed a bit, or just across the river. There was no thought of moving us up as had been done from La Ferte, because, owing to the actual scarcity of food, the tremendous press of work which had necessi-

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tated such long and continuous shifts, the plague of flies and the unspeakable sanitary conditions of the whole place, most all the officers, nurses and enlisted men had contracted dysentery. The hospital was closed on August 5th. Our orders came ordering us back to our station on the 6th. We arrived on the 9th—and as if we had not been through enough we were right royally shelled as we passed through Paris.



WINTER, 1917, BETWEEN TWO WARDS

THE EXPERIENCES OF SURGICAL TEAM No. 11A

Captain Watt
Captain Wharton
Captain Happ
Nurse Cushman
Nurse Thompson

Orderlies, Sergeant Scanlon and Private Brewster

JULY 4, 1918, the above team (with the exception that Harvey Stone was Commanding Officer in place of Charles Watt) received orders to proceed from Base Hospital No. 18 and report to the Chief Surgeon, 42nd Division. This team had been organized a couple of weeks before in anticipation of a call upon the hospital (which already had two teams out—Bernheim's and Heuer's). Stone was the surgeon, Wharton his assistant and Happ the anæsthetist. It may be stated of Happ that he had never given a half-dozen anæsthetics in his life, but spent these two weeks diligently studying the art in the operating room at 18, with, fortunately, a low mortality. The morning of the 4th saw the team pull out in a G.M.C. ambulance, trailed by a Ford ambulance bringing baggage and a large hamper full of instruments and dressings, etc. Reluctantly we had to miss the baseball game between Base Hospital No. 18 and Evacuation Hospital No. 6, as a result of which game so many of our Unit went broke for weeks to come. We were told to proceed to Boursault, near Epernay, where the 42nd headquarters would be. The ride was very interesting, through Ligny, Vitry-le-Francois, Chalons, Epernay. When we arrived at Boursault we saw a very pretty chateau with a Red Cross flag, and on inquiring there found a very apologetic French medical officer, who seemed very much frightened for fear we might remain, and sent us back to Chalons, where we spent the night at the Hotel Angleterre. Chalons we found a very interesting city, somewhat stripped of its civil population and filled with French and American soldiers. The next morning Stone found the office of the Medical Department, which directed us to Bussey-le-

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Chateau, about eighteen kilometers north of Chalons, on the road to Suippes. We arrived there that afternoon (the 5th) and found a large conglomeration of wooden shacks that had been used for four years by British and French and turned over the day before to the field hospitals of the 117th Sanitary Train of the 42nd Division. These, four in all, had only arrived the day before, and naturally they were upset.

The French, with characteristic prudence, had left a staff of medical officers, quartermasters and personnel there, to be sure that all property was accurately accounted for.

We were assigned to a barrack and had time to look around. Bussey-le-Chateau was then twelve kilometers back of the line, and a very small village. Our hospital, with a capacity of 1500 beds, was on the edge of the town, on a railroad track, and alongside two main roads. Across the road was a big ammunition dump. All night and every night after we could see column after column of French artillery, ammunition camions, and soldiers going up front. The dope was that the Boche was expected to start a big drive through this area (Rheims to the Argonne) in the direction of Chalons and Epernay, thus giving him the Marne from Chateau-Thierry to Chalons, and a basis for his next drive on Paris.

From now till the 14th it was very quiet. Charles Watt relieved Stone as surgeon, Harvey reporting back to 18, as our Commanding Officer had been called away. Mobile Hospital No. 2, organized from the Presbyterian Hospital Unit, joined the hospital, as did several surgical teams and two shock teams in charge of Major Cannon. The mobile unit contributed an excellent operating equipment. The surgical teams were divided into day and night shifts. We were on day. There were no patients until the 14th, then hell broke loose.

That day was alcoholically celebrated by the French to commemorate certain events in connection with the Bastille. After supper we were sitting in Captain St. John's office, Colonel Brewer was there and we were beginning to doubt if there was going to be an offensive. We learned from Colonel Brewer, the consultant surgeon of the 42nd, that that outfit had moved in and taken over a part of the second line. We went to bed as usual. At 12 midnight, we were awakened by a series of whizzing noises over our heads, a confusing roar of artillery punctuated by the blowing of a klaxon (the gas mask alert) and three shots (the gas alarm), so we sat up and put on our masks, and part of our clothes, and tin hats, and looked out. There was a tremendous drum barrage going on, the noise was terrific, heavies and barrage all mixed up in a roar. The unpleasant screeching noise was due to shells going over our heads and landing in a field back of us. They were said to be gas shells, hence the gas alarm. The Boches were shelling the back area, they said, and we should get under cover. The shells came over

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very frequently now, and seemed to be landing uncomfortably close. Evidently the Huns were shelling the roads and the railroad, and the dump. The French had a dugout built at the hospital to cover such emergencies as these, so the first act was to move the patients and nurses to this dugout. The shells began to fall into the hospital, one hit a ward direct and killed two patients and a private, fortunately, the rest of the patients had been removed. Another hit an empty ward. Ambulances with patients began to come in. The night shift went on the job in spite of the shells. We, being on day shift, were ordered to the trenches which the thoughtful Frenchmen had built. Here we remained till 7 o'clock. In the meanwhile, a shell hit the operating room, so Colonel Brewer ordered operations off and everybody dug for shelter. A direct hit was made in the railway shed at the evacuating end of the hospital. It was a warm night. When morning came the shelling stopped, presumably to let the Fritzes go over the top. Our hospital was ordered to evacuate at once. Between 8 and 10 a.m. we got all patients out, then nurses, and left ourselves at about 10.30, going to Ecury, south of Chalons. We kept on side roads, as the main Suippes-Chalons road was heavily shelled that morning, and we arrived at Ecury about noon, at E.H. No. 4. That was the last we saw of Bussey, but we heard the shelling started again at 2 p.m. and a direct hit was made on the operating room where we would have been working had we stayed there. Fortunately we were not there. We got a bite to eat with E.H. No. 4, and were immediately sent to Chalons to help out for the night at a French hospital which had turned a few beds over to Americans. The patients had begun to come in and they had nearly a thousand already at Ecury. We went to Chalons in the afternoon and pitched in and operated till 11 p.m. This was an awful night, as long range guns were heavily shelling Chalons, and Hun planes were busy bombing it, and anti-aircraft were very busy shooting at the Hun planes. We were relieved at 11 p.m. The cases, chiefly abdominal, were coming back badly shot up and shocked. We rested the best we could till morning, when we went back to Ecury. That night Hun planes dropped bombs directly on the hospital, making a direct hit, after which this hospital was abandoned. Luckily also we were not there. At Ecury we were told to go on night shift at 9 p.m. The hospital was jammed with wounded, 2,000 of the 42nd Division passing through this hospital in twenty-four hours. We did ten big cases that night. The next day (the 17th) was awfully hot but we were all in and slept fine. Just a word about the drive. The Boches had attacked on a ninety kilometer front, Chateau-Thierry to the Argonne, one of their biggest drives of the war. Somehow the French had got the German plans and knew they would begin their barrage at 1 a.m. and come over at 4 a.m. The French Fourth Army under General Gouraud held this sector and the 42nd was sent in at the last hour attached to this French Army. The French started their barrage before the Boche, and had

a tremendous amount of artillery in place. By plan the French evacuated their first line and the 42nd in the second line met the brunt of the attack and so had severe casualties, but the line held and the next day (the 15th) they counter-attacked and regained the original first line positions, so the Boche attack failed utterly. Then it was that Gouraud sent word to Magnin that the line was holding and asked him to start with his Sixth Army the counter-attack at Soissons that turned the tide, and from that moment on to the end of the war it was the Allies that did the offensive work and the Boche never was able to put on another drive. Chateau-Thierry was taken and then the Soissons-Chateau-Thierry-Rheims pocket and so on. Papers captured on the Boches showed they expected to have Suippes on the 15th and Chalons on the 16th. The 42nd deserves great credit for their aid in this defense and were decorated by General Gouraud.

Our stay at Ecuy attached to E.H. No. 4 was not without excitement. On the 18th, we operated from 2 to 9 p.m. Then we went in for some sleep and were awakened at midnight by a terrific explosion close by. It proved to be a bomb which a Hun plane, circling very low, had dropped. It fell alongside the hospital but missed it, landing in a wheatfield, scattering fragments of iron in every direction. It fell just fifty yards from our tent and made a big dent in terra firma. Luckily no more were dropped. As there were no other objectives close by for the plane to drop bombs on, and our own hospital was clearly outlined by a red cross, this could not be taken as other than a deliberate bit of Hun hate. Fortunately no one was hurt. Being only a few miles from Chalons, we could see the anti-aircraft barrage and searchlights plainly. An ammunition dump several miles away was hit by an incendiary bomb and the explosion and fire that resulted were picturesque. Planes were over all the rest of the night, but one couldn't tell whether they were ours or the Boche's. July 19th the 42nd moved out of the line after their gallant defense, and we were told to get ready—that E.H. No. 4 would move. That night was a clear bright moonlight night, but the moon had lost its attraction for us. We were praying for rain. At 11.30 p.m. a Hun plane came over the hospital circling low and opened up with his front and rear machine guns on the hospital. He was very plainly seen. Then he went on and dropped two bombs on the village railway station. Nobody was hurt, but our faith in the Huns' observation of the Hague Conference was badly shaken and most of us slept the rest of the night in the wheatfield. On the 21st the hospital packed up and moved in 110 big trucks. We left at 6 p.m., and spent the night on the road, which was not very comfortable. We were going in the direction of Chateau-Thierry. Next day we arrived at Chateau-de-Perouse, near La Ferte-sous-Jourre. This was a beautiful chateau, with a park, lake, etc. Here we thought we would get a little rest, but as we were attached by orders to the 42nd Division, we were told to leave and report to our old friend Mobile Hospital No. 2, so we



got in an ambulance and joined them at Chateau de la Trouse, near Lizy, which is about halfway between Chateau-Thierry and Soissons. We joined this outfit with which we remained till we received orders to return to our base. They were at a pretty chateau, with the hospital set up on the grounds. We were about all in from our rides and excitement and lack of sleep, but were told to go on night shift, and worked from 7 p.m. to 7 a.m. The Allied counter-offensive, Soissons to Chateau-Thierry, had begun on the 18th. We received patients not only from the 42nd, but also from the First Army Corps, that is, the 42nd, 1st, and 2nd Divisions. For the next few nights we were busy, then on the 28th it grew quiet. It was very nice there, except for the flies; we had good food, no bombing, and a nice chateau to lounge in. It belonged to a Count Crony, and had been occupied by the Boche in 1914. We found the Mobile No. 2 crowd very friendly and congenial. From the 25th to the 30th we were busy in spells. The advance had been going on steadily, but the 1st American Corps had suffered about 25,000 casualties.

On July 31st we were ordered to move to La Ferte-Milon, which is near Villers-Cotterets, where the operating party of Mobile No. 2 was to reinforce E.H. No. 3, which was set up there. They were right on the railroad track at what was then the railhead for the Soissons sector. La Ferte-Milon marked the extreme western line of the Boche June drive. They had shelled the town, which was of fair size, till there was not a house or building left intact. We were there till August 4th, and did not receive a patient. I don't think they knew we were there; at any rate we got to see the country about and the Villers-Cotterets woods. August 5th we moved to Crezoncy (near Chateau-Thierry) which had been re-taken. The route was along the line of the recent attack and very interesting—Boche ammunition all along the road. We didn't stay at Crezoncy long but were glad to see Chateau-Thierry, which was severely damaged with its bridges blown up and pontoons across the Marne. On August 6th we were ordered to Coincy, north of Chateau-Thierry, and near Fere-en-Tardenois. All this time we were moving but not operating. The line was now north of Fere-en-Tardenois. The Boche had left Coincy four days before we arrived. German road signs were still up and piles of German ammunition, dead men and horses, captured guns, and all sorts of interesting things, a feast for souvenir hunters. Mobile No. 2 set up here alongside of E.H. No. 4, and here we remained till our recall August 23rd. We worked on night shift, and in the daytime went sight-seeing. We went to Fere-en-Tardenois and saw the Boche shelling it, visited Quentin Roosevelt's grave, saw the emplacement of a Big Bertha that bombed Paris. There was no shelling or bombing. On the 23rd we received orders to report back at 18, and returned via Paris. Needless to say we did justice to a Cafe de Paris meal and a Hotel Continental bath tub. Our living had been pretty rough, but we all enjoyed it. However, we were glad to see the sign BAZOILLES.

TRIP OF SHOCK TEAM JULY 23, 1918, TO SEPTEMBER 23, 1918

THE team was composed of Captain V. R. Mason, in charge, two nurses, Miss Stock and Miss Bowling, and Privates John Ryan and Clarence Petri, and its duties were to take charge of the very ill wounded and attempt to improve their condition to such an extent that operation would be possible.

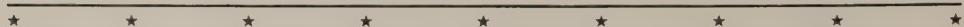
The team arrived at Chateau-Thierry July 27, 1918, after the usual difficulties that any organization has before it is able to function in time of war. It was installed in the Hotel Dieu, a Catholic hospital, which had been used by German troops during their stay in the city. From garret to cellar the place had been ransacked; the beds were stacked or broken, mattresses torn open, linen scattered everywhere, and the floors littered with hospital material of every sort. Almost every window pane was broken and several shells had made holes through the brick walls.

The hospital was a very busy place, and for many days over five hundred gassed or wounded passed through in each twenty-four hours. Only the non-transportable wounded were held and treated and it was a depressing experience for all of us to see, day after day, terribly wounded men, many of whom died in spite of all treatment.

The city was bombed several nights, but no serious damage resulted and none of the bombs fell near the hospital.

From Chateau-Thierry the hospital moved to Cohan, a little village on a branching road about eleven kilometers south of Fismes (on the Vesle). The old cathedral of the village was occupied by the divisional triage and our hospital tents were pitched just beside one of the main roads to the front. There were batteries of 155's on both sides of us, and we could sit outside our quarters and see ten to fifteen of our own observation balloons and at times as many as nine Boche balloons. Occasional German shells were exploding on the hills around us and one exploded at the edge of the road about one hundred yards from the hospital, sending a large piece of casing through a ward tent.

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The German aviators were constant visitors at night, bombing the roads and turning their machine guns on the troops and trucks. Two bombs landed within thirty yards of the tents, but fortunately failed to explode. After that all personnel not on duty was required to find shelter and all evacuable patients were sent to the rear.

A surgical team and the shock team were transferred August 18th to the triage and installed in a little house just at the edge of the village. The kitchen was used as an operating room, the dining-room for the X-ray, the cow stable for a shock and post-operative ward, and the wine cellar as a dugout. Only a few seriously wounded were received, and those usually in less than an hour after they had been found, so that professional work was very satisfactory.

The nurses were very happy to be so near the front and when ordered back to a safer place protested, but in vain. They had worked almost without ceasing for many weeks, and had refused to leave the wounded no matter how real the danger was. The success of the team was due to their efforts and after they went back the teams were only too glad to be sent to another place. From Cohan the team was ordered to Villers-Cotterets August 27th, and from there again to Chateau-Thierry, September 7th. From that time the team ceased to function as such, although the nurses were held at A.R.C. Hospital No. 110, where wounded were received from the Argonne Forest until late in October.

TRIP HEART STUDIES

ON March 20, 1918, Dr. E. W. Bridgman was relieved from further duty with the organization and, as a preliminary to assignment in cardiovascular work, was sent to England. On arriving he became attached to the British Army, and was located at the Military Heart Hospital at Colchester under Dr. Thomas Lewis. Six other Americans were already there, having been sent over some six months before by the cardio-vascular board in the States, and, together with two Britishers and two Canadians, they constituted the medical personnel of the 600-bed hospitals established at Sobraon Barracks for the especial treatment of heart cases. The work was most instructive and interesting, comprising, for the most part, cases of disordered "action of the heart"—a nomenclature applied to the American "effort syndrome" group.

It was especially Dr. Lewis in England who emphasized the frequency of systolic murmurs in normal hearts, and who recognized the so-called irritable heart of DeCosta. He spread the knowledge extensively in his efforts to get out of bed and to work some of the 15,000 men who could be found at any one time scattered through the British hospitals. These men were being kept flat on their backs under digitalis therapy, and constituted a severe loss to the man-power of the British Army. He instituted graded exercises as a means of treatment and as a basis for re-classification—a method which was highly successful and so proved by his "Follow-Up System." A great many of these patients were sent out for front-line duty, and, with the exception of a very few who were discharged from the service, the rest were grouped for useful work behind the lines—general laborers, stenographers, painters, carpenters, etc. This work they could do as well as normal men, who could be thus relieved to fill the need in the front-line trench.

The individuals with organic heart disease, as manifested by valve lesions or definite hypertrophy, made up only about 5 per cent of the total, and were immediately discharged; so that the work had to do particularly with that interesting waste-basket of cases that is gradually being sorted into groups with more exact diagnosis.

One cannot but comment on the different manner of working that the English employ. To be sure, it was a nation fatigued by a long drain on physical and nerve power, but their efforts were so different from those of the enthusiastic

Americans in France, who started early in the morning and carried through the day, often into the night and all day Sunday. The actual work at the heart hospital required but three to four hours per day, so that no small part of the Americans' time was devoted to week-ends and afternoon trips about England and Scotland, an exceptional opportunity. However, they learned the use and application of graduated exercises as being the method *par excellence* for the determination of a patient's ability as opposed to guessing, the stethoscope, or exquisite laboratory determination.

This method was performed on a far more active scale in the American Expeditionary Force, and the knowledge of the varying types and degrees of the disordered action of the heart represents another experience for which America is indebted to England. The knowledge obtained from the mistakes of the English was speedily applied to the American Expeditionary Force, where efforts were further made to prevent the psychosis, hysterias and defense reactions from being too deeply grounded, by attending medical men, in the minds of those fresh from the horrors of war.



TOKIO ALLEY

SURGICAL EXPERIENCE AT EVACUATION HOSPITAL No. 1

WITH the movement of American troops to the front came the need of forward hospitals, and of these, Evacuation Hospital No. 1 was the first to be established and equipped for the reception of battle casualties. This hospital was at Sebastopol, in a French military barracks between three and four miles northwest of Toul, France. It was opened early in February, 1918, and occupied half of the barracks, the other half then being occupied by a French medical organization. This hospital was designated as a practical school for war surgery of the A.E.F., and among the first teams to be assigned there was the one consisting of Dr. George J. Heuer, M.C., Private First Class (later First Lieut.) Garland M. Harwood, Private First-Class (later First Lieut.) Gilbert E. Meekins, Private First Class James McIsaac, Miss Angele R. Millner and Miss M. Maye Liphart. On March 2, 1918, Dr. J. M. T. Finney took Dr. Heuer and the nurses to Sebastopol, and the other members of the team followed in an ambulance with the equipment.

The first impressions were a bit gloomy. The officers messed in a snow-covered tent with overcoats, caps and gloves, and with their feet resting on bricks to keep them out of the deep mud. The wind-swept garret room assigned as quarters was impossible to heat, and the cleanliness of the place was that of the usual French hospital turned over to the American Army. These discomforts, however, were but temporary, and were, indeed, unavoidable in a newly developing institution, and through the efforts of the commanding officer, better quarters were soon established for the nurses, officers and men. New mess halls were constructed, officers' and nurses' clubs, Y.M.C.A. building for the men, and excellent bathing facilities for all. It is fair to say no hospital at the front accomplished so much for the physical comforts of its staff.

This hospital was built on a plain six or eight miles from the front lines, with good roads between it and the front over which wounded could be rapidly transported, and with Toul three or four miles to the southeast as a railhead for evacuating patients. The hospital consisted of numerous stone and brick buildings, seven of which were large barracks and were suited for hospital buildings. In its early history, Evacuation Hospital No. 1 had three of the French pavilions and the French had four. Later it took over the entire institution, and

still later (just before the St. Mihiel drive) by the addition of huts and tents, increased its bed capacity to approximately three thousand. The equipment of the pavillions and the wards, at first rather scanty, soon was adequate for all needs, and aside from the fact that there was no running water, and that the beds were low, the wards were well suited for their purpose.

The surgical work was so arranged that each surgeon had a distinct surgical service. He had a definite period of duty during which he received and operated upon all cases entering the hospital. He had a surgical team which remained intact over long periods so that he could train it to work most efficiently, and which was large enough so that daily dressings and careful attention for the post-operative care of patients was possible. Each team had its own operating room and surgical ward, a clerk to keep the records, and the operator was absolutely independent so that he could carry out his own ideas in the treatment of his cases. There were many advantages in such an arrangement; it provided a spirit of friendly rivalry among the teams, it stimulated new ideas, it made possible the carrying on of the work, often under trying circumstances, with the least labor and friction.

During only one period in the hospital's experience was this arrangement of work changed. Just preceding the St. Mihiel drive our bed capacity was increased to approximately three thousand beds, and our surgical personnel to fifteen surgical teams; and during the latter part of the drive by taking over the teams of Mobile Hospital No. 3, and several from another evacuation hospital, to twenty-six surgical teams. With this change came the need of a different arrangement of the surgical work. The surgical service was put in charge of a Surgical Director (Dr. Heuer), who did no operative work himself, but acted as Triage Officer (*i.e.*, saw all cases on admission, decided whether they were or were not operative, whether or not they required shock treatment, what surgeon they should go to, what ward they were to be assigned to, etc.), as consulting surgeon to the operating room and ward surgeons, and as evacuation officer to the extent of deciding what pre- and post-operative cases could safely be evacuated. First Lieut. Walter Holmes acted as Dr. Heuer's assistant, and being on night duty shared equally with him the responsibility of the position. The surgical teams were put on twelve-hour shifts and were held responsible only for the operating-room work, and not for the surgical dressings and after-care of their patients in the wards. The pavilions and wards were divided so that cases of a similar nature were grouped together into head, chest, abdomen, bone and joint and soft part wards. They were put in charge of ward surgeons who had no operating-room duties at all, but confined themselves entirely to the dressings, after-care, and records of the patients under their charge. The surgical work itself was altered to the extent that no wounds were closed, excepting those of

the scalp or brain, face, chest and knee joints. In passing, it may be said to the credit of the institution that during the period of the St. Mihiel drive no patients were evacuated without operation who (as was decided at a conference of surgeons) could not safely be transported; every patient awaiting operation was under shelter and warm; and no patient operated upon was evacuated until a first dressing had been done. This last point is important, for it enabled us to discover and reoperate upon patients with post-operative gas infections before they were sent on an indefinite train journey.

Dr. Heuer remained on detached duty at Evacuation Hospital No. 1 until after the armistice, when he was returned to Base Hospital No. 18. The nurses were changed at intervals of six or eight weeks, so that the opportunity of securing surgical experience in an evacuation hospital was obtained by seven nurses in all. Private first class Harwood remained with Dr. Heuer until he was graduated and commissioned as a first lieutenant in the Medical Corps. Privates first class Meekins and McIsaac were replaced by privates first class Richard C. Coblenz and Edward A. Robinson, and later by two men from Evacuation Hospital No. 1. The nurses besides Miss Millner and Miss Liphart who were at various times on duty as part of Dr. Heuer's team were Misses Marion Beal, Mary G. Lyman, Ethel Jones, Bessie W. Omohundro, and Margaret W. Sayres.



WARD INTERIOR

VASSENY TRIP

IN order to give the Medical Service of the A.E.F. the benefit of three years' experience in handling wounded and "war surgery" the French Service de Santé invited the Surgeon in Chief to send several operating teams to the various organizations behind the Chemin des Dames for practical experience and observation. A large attack was to be made toward the end of October. Every detail was carefully worked out and especially was this true of hospital formations. Base Hospital No. 18 was called on to furnish a team and the following representatives were sent: Capt. Wm. S. Baer, in charge; Lieut. H. R. Slack, assistant surgeon; Lieut. H. N. Shaw, anæsthetist; Lieut. Chas. A. Waters, roentgenologist; Miss Annie Barnard and Miss Mae Liphart, nurses; Messrs. Hugh Morgan and Albert McCowan, stretcher bearers.

The team left Bazoilles September 27, 1917; reported to French authorities at Le Bourget, September 28, 1917. Here we met two other teams like ourselves, one from the Roosevelt Hospital headed by Dr. Peck, with the genial Henry Cave along, and another from the New York Hospital (Base 9). After an all-night ride in cramped quarters, we all arrived at Braisne on the Vesle River, about 7 a.m., September 29th. All three teams were sent at once out to H.O.E. No. 18, situated at Vasseny, on the road between Rheims and Soissons. One felt like there was really a war going on, for the guns could easily be heard and at night the star shells gave a most fascinating effect. There was much discussion among the French officers as to the advisability of putting a hospital so close to the lines—it was just ten kilometers from the trenches and subject to shell fire; the general concensus of opinion was that it should have been five kilometers further to the rear. But we were glad enough to be up near the scene of activity and excitement.

Each team was assigned to one of the three auto chirurgies, headed by Breschat, Margins, and Duval. Our team was with M. Breschat. The hospital had about 4,000 beds, 1,000 being assigned to each of the three operating units, and the other 1,000 being used for the specialties, particularly face cases under the direction of Professor Morestin. In addition to this there were ample provisions for



dressing and feeding and resting a few hours the *petit blessé*. The buildings consisted of wooden barracks and Bessaneau tents. Numerous dugouts and sandbag barricades afforded protection against possible air raids. The receiving triages were admirably arranged for the speedy handling of patients and there was never any delay in unloading the ambulances. All these details were intensely interesting and it formed a basis for our own organization, though I haven't heard of a single American evacuation hospital that functioned so satisfactorily and smoothly as did the French H.O.E. 18 in October, 1917. And this may in a large measure be attributed to the well-nigh perfect transportation facilities—both motor and rail—for handling the wounded. Another important factor was the success and steady advance of the attack without any counter-offensive, which enabled the stretcher bearers to get a man as soon as he was down. The average time from the moment a soldier was hit until he was on the operating table was about eight hours—and of course he had been through the X-ray and been cleaned up after a fashion in the meantime. Getting the cases so early naturally yielded better surgical results and saved many lives and limbs. It was particularly interesting to the writer for it afforded an opportunity to appreciate the advances made by the French Service de Santé, since the beginning of the war. The type of surgery was wonderfully improved and the hospital organization and administration did not seem to belong to the same system as existed in France during the fall of 1914 and the winter of 1915.

It would hardly come in the scope of such an article to describe in detail the organization of the hospital and the various views on war surgery. Suffice to say that everyone gathered very definite impressions of some of the essentials; especially the importance of X-ray and accurate localization; the possibilities of primary closure; the correlation of wound bacteriology and surgery; the use of the Carrel-Dakin method of wound cleansing with subsequent secondary closure. The ideas obtained by just such observations formed a basis for the teachings on war surgery promulgated by the various schools and by the Consultants in the Medical Department of the A.E.F. So much for generalities.

During the rush, which lasted about four days, the teams in our unit worked in eight-hour shifts, our team doing a regular turn, taking the cases as they came in. Eleven cases was the largest number we put through during the turn. A great deal was learned about conservation of supplies and instruments, speed, etc., in such emergency work. But all this is an old story now.

In the eight hours off we had to look after the dressings of our cases, and for a time there was so much new and interesting—unloading ambulances, bringing in German prisoners, loading trains for evacuations—that no one thought of sleeping. However, the novelty soon wore off, and we slept soundly in spite of the artillery.



Dr. Marquis was much interested in Dr. Baer's plaster casts and in working out the use of the Thomas splints, so we looked after all fractures on Dr. Marquis' service. The tireless and efficient work of Misses Barnard and Liphart and of Morgan and McCowan reflected much credit on our team.

This story would not be complete without mentioning Hank Shaw's rivalry with Heiny Cave for the smiles and favors of some of the French nurses—especially the "skinny girl." Buck Waters furnished much amusement by his daily dope and terror of exploding shells—also a flight over le Fort de la Malmaison. Bazoille, Dr. Baer's chow dog, came up by a special messenger and became a regular member of the team, and incidentally somewhat of a care to Buck. We all got to Soissons several times; went to advanced dressing posts; saw Chasseny, Vailly and Lixy, destroyed villages near the fighting; experienced the sensations produced by proximity to Boche shell fire; witnessed several air battles, etc. Probably the pleasantest feature of the trip was the cordial relations with the French medical officers and some Chasseur Alpine officers, with whom we frequently dined and passed an evening. Coke Williamson (from New York Hospital) with his beard and clog dancing was very effectual in bringing about this fraternizing. We all learned some French.



INTERIOR OF A WARD

REPORT OF THE ACTIVITIES OF THE DIVISION OF GENERAL SURGERY

1. The Division of General Surgery was organized by the appointment of Maj. John M. T. Finney, M.R.C., as Director, Division of General Surgery, A.E.F., by G.O. 58, par. 4, G.H.Q., A.E.F., November 10, 1917. Maj. Charles H. Peck, M.R.C., and Maj. William A. Fisher, Jr., M.R.C., were appointed Assistant Directors, Division of General Surgery, on December 22, 1917. On January 28, 1918, a joint office was opened in Neufchateau, with the Directors of Orthopædic Surgery, Psychiatry and Genito-Urinary Surgery, and has been maintained there up to the present time. Subsequently the Directors of the Divisions of Roentgenology and General Medicine with their assistants took up quarters in the same office. Each of these Divisions reported directly to the Chief Surgeon, A.E.F. Pursuant to G.O. 88, par. 1, G.H.Q., A.E.F., June 6, 1918, the designations of the Chiefs of the various divisions were changed and co-ordinated under a Director of Professional Services, Lieut.-Col. W. L. Keller, M.C., Maj. J. M. T. Finney, M.R.C. was designated as Chief Consultant, Surgical Services, A.E.F., with the subdivisions of Surgery directly under him, as follows:

Maj. James T. Case, Senior Consultant in Roentgenology.

Maj. George W. Crile, M.R.C., Senior Consultant in Surgical Research.

Maj. Harvey Cushing, M.R.C., Senior Consultant in Neurological Surgery.

Maj. Joel E. Goldthwait, M.R.C., Senior Consultant in Orthopædic Surgery.

Maj. James F. McKernon, M.R.C., Senior Consultant in Ear, Nose and Throat Surgery.

Maj. Charles H. Peck, M.R.C., Senior Consultant in General Surgery.

Maj. Hugh M. Young, M.R.C., Senior Consultant in Venereal, Skin and Genito-Urinary Surgery.

Maj. Vilray P. Blair, M.R.C., Senior Consultant in Maxillo-facial Surgery.

Maj. Allen Greenwood, M.R.C., Senior Consultant in Ophthalmology.

The various subdivisions of surgery by this order were co-ordinated under the Chief Consultant, and held directly responsible to him.

Only two changes in the above personnel have since taken place. Lieut.-Col. Charles H. Peck, the Senior Consultant in General Surgery, was ordered to return to the United States for duty at the office of the Surgeon-General in the early part of

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July, 1918. Lieut.-Col. William A. Fisher has since acted in his stead. Lieut.-Col. James T. Case was succeeded on October 20, 1918, by Col. Arthur C. Christie. In October, Col. Allen B. Kanaval was added to the staff of the Chief Consultant.

2. The first step taken in the professional care of the wounded by the Division of General Surgery was the recommendation for the appointment of a surgical consultant in each of the four divisions which were in France at that time. These appointments were as follows: Maj. George E. Brewer as Consultant to the 42nd Division, Maj. Frederic A. Besley as Consultant to the 26th Division, Maj. John H. Gibbon as Consultant to the 1st Division, and Capt. Burton J. Lee as Consultant to the 2nd Division. These consultants met the medical officers of the divisions to which they had been assigned as frequently as possibly, and endeavored to give them the benefit of the experience which they had gained while serving with medical formations attached to other allied armies and to instruct them, so far as possible, in the clinical duties expected of them. When these divisions went into the line, the consultants soon found that their services were more valuable in the hospitals to which the wounded were taken for definitive surgical treatment and thereafter their time and attention were directed chiefly to the work in these organizations. In the case of the 1st and 42nd Divisions, this was in Evacuation Hospitals Nos. 1 and 2, which were established in February and March, 1918. In the other two divisions, which were operating with the French, and to whom they were entirely responsible for all of the surgery which was done there, the activities of the consultants were confined to observation of the methods employed and of the treatment that our men were receiving from them.

This arrangement did not prove wholly satisfactory. In the case of one division, the treatment of the wounded by the French was so unsatisfactory, that the surgical consultant, with the co-operation and consent of the division surgeon, collected a fairly complete surgical hospital and organized from the personnel of the division, operating teams, which he carefully trained in the technique of modern war surgery. The consultant in this instance personally headed one of the teams and remained with the division during the whole subsequent campaign. It soon became apparent that for various reasons the idea of having a surgical consultant in each division was inadvisable. The chief objection to this arrangement was that being attached to divisions, the consultants could not have supervision of the surgical work in the evacuation hospitals to which those divisions evacuated. Then, too, with the constant change of location of divisions, and with the possibility of more than one division evacuating to the same hospital, it became evident that this arrangement would not be practical or possible. As Circular No. 25 provided for a consultant and assistants for formations equivalent to an army corps, the appointment of corps consultants

ACTIVITIES OF THE DIVISION OF GENERAL SURGERY

and assistants was requested, as it was believed that the corps would be an area formation and that these consultants would also be able to supervise surgery in the evacuation hospitals. This arrangement was satisfactory until the First Army was formed. Then it developed that the corps would be almost as mobile as the divisions, so that the same objections, which applied to divisional consultants in connection with their relations to evacuation and mobile hospitals, obtained.

The solution of the difficulty seemed to be the assignment of a consultant to each army with a sufficient number of assistants to supervise the surgical work in all the evacuation and mobile hospitals. These officers, by virtue of their army connection, would then have the authority to supervise the surgical work in all the formations in the army. This policy was put into operation in both the First and Second Armies and during the short period of time in which it was tried, proved to be satisfactory and bid fair to yield good results with the least expenditure of medical officers.

Although some difference of opinion developed among division surgeons as to the need for surgical consultants in the divisions, corps surgeons, who have had experience as division surgeons, seem to be unanimously of the opinion that surgical consultants are under existing Army rules unnecessary in divisions and corps, and that their assignment to the army is the most satisfactory arrangement. From the very outset it was apparent that field hospitals had neither the equipment nor the personnel to do serious surgical work. There was a decided tendency as each new division went into the line, for the division surgeon to have the wounded treated in field hospitals. Orders were therefore requested and subsequently issued from the chief surgeon's office to division surgeons, that no operations were to be done in field hospitals where evacuation hospitals were available. This made it possible not only to supervise the surgical work with less consultants, but also to concentrate in evacuation and mobile hospitals the most experienced surgeons, with assistants, nurses and orderlies who had been previously organized in the form of teams.

One of the first things that was undertaken when the Division of General Surgery was organized was the formation of surgical teams from the personnel of the base hospitals. On January 7, 1918, a letter was sent to all the base hospitals then in France asking them to organize one or two teams from each hospital, to consist of an operator, assistant, anaesthetist, two nurses and two orderlies. The operator in each case was to be one of their most experienced men, and the assistant, a man who was capable of soon heading a team himself. As a result of this circular letter, twelve to fifteen teams were soon available for duty with our own forces or those of the Allies, and were requested to hold themselves in readiness for service in the immediate future. As other base hospitals arrived they were asked to furnish this office with a list of the personnel of at least two such

teams. On the opening of Evacuation Hospital No. 1, three teams, one each from Base Hospitals Nos. 9, 15 and 18, were assigned to it to perform the surgical work, which was then beginning to come in from the 1st Division then in the trenches. The consultant assigned to the 1st Division also supervised the work of these teams, and acted as the Surgical Director of Evacuation Hospital No. 1. This hospital, being the only hospital of its kind then in operation in the A.E.F., was used as a school where the heads of other teams could be sent for purposes of observation and instruction. Later on, when other evacuation hospitals were established and became actively engaged in surgical work, they were used for the same purpose. This eventually gave a fairly good nucleus of well trained operators, but there came a time later on when the need for teams was so acute that it became impossible to give them this preliminary training, and when, owing to extreme urgency, it became necessary to make use of officers who had not had any preliminary training in military surgery, and among them even those who in civil practice would not be considered first-class surgeons. These men were drawn from every available source, casualties, divisions, camp hospitals and even from the classes attending the sanitary school. There were two factors which made it necessary, under the circumstances, to do this: (1) the fact that there was not a reserve of well trained unattached surgeons, which could be drawn upon for this purpose, and (2) the necessity of keeping in the base hospitals competent operators to take charge of the patients evacuated from the front in preoperative and post-operative trains. Toward the latter part of the campaign, there were nearly three hundred organized teams, approximately two hundred of which were on duty with the First and Second Armies, and with divisions which were operating independently. Generally speaking, these teams were assigned to evacuation and mobile hospitals, but under exceptional circumstances they were also sent to field hospitals, when such were acting as hospitals for non-transportable cases. This was especially true in the Chateau-Thierry district, when the army had moved forward to such a distance that it was not possible to transport serious cases to the evacuation hospitals which had not yet moved up. In the St. Mihiel and Argonne sectors, this was not necessary as the mobile hospitals were used for this purpose.

One new feature in the care and treatment of the wounded that has been developed quite recently is the preoperative train. By this is understood a hospital train which is filled with unoperated cases which would not suffer as a result of railway transportation and a delay of from twenty-four to thirty-six hours. The chief surgeon of the First Army was furnished with a list of the types of cases which were considered suitable for preoperative trains, and at the time of the offensive in the St. Mihiel sector, and thereafter, this idea was put into practice, with the result that the front hospitals were relieved of a large number of cases.

ACTIVITIES OF THE DIVISION OF GENERAL SURGERY

The cases thus transported were operated upon mainly in the advanced base hospitals, which for the time being really became evacuation hospitals for the slightly wounded. No bad results from the development of gas gangrene were observed, except in a few instances where the trains had to be sent to the more distant bases.

The necessity for consultants in the large hospital centers had been apparent for a long time, but the shortage of officers of the proper type, owing to their urgent need at the front, made their assignment to these positions impossible until toward the end of the campaign. On the appointment of consultants in the base hospital centers, it was the purpose of the chief consultant to hold monthly or semi-monthly meetings of all the consultants, so that there might be an interchange of ideas and a discussion of methods of treatment, thus bringing about a co-ordination of the surgical work between the front and rear. At the same time it would be possible for the consultants in the forward areas to check up the results of the work done by the teams and organizations for which they were responsible.

In addition to the activities of the Division of Surgery directly connected with the treatment of the wounded, the senior consultants of the subdivisions of surgery as well as the surgical consultants connected with tactical organizations gave lectures to the students in the Sanitary School at Langres on surgical subjects connected with their respective departments. Reports on the activities of the subdivisions of surgery will be submitted by the senior consultant in each department.



WARD INTERIOR



THE SUPPLY ROOM

RECONSTRUCTIVE FACE AND JAW SURGERY

ON May, 23, 1918, Drs. B. Lucien Brun and Harvey B. Stone were ordered on a tour of inspection of the large French hospital centers in which special attention was devoted to correcting deformities of the face and jaw resulting from battle injuries. The first hospital visited was at Tours—Hopital Complementaire Temporaire du Territoire N°. 2. At the time of this visit there were no fresh cases in the hospital and most of the old cases had been recently moved out, because, in consequence of the great German offensive, the hospital had been changed in character to serve the purpose of an evacuation hospital, therefore, only one day was spent at this place. Major Ombredanne, the chief of the surgical service, was exceedingly courteous, and showed us all the cases he had, and also his museum of plaster and wax models representing cases treated there in the past. Captain LeDoux-LeBard, chief of the X-ray service, was also most helpful and kindly.

The next place visited was Bordeaux. Here there was an extensive service devoted to general head cases under the supervision of Dr. E. J. Moure, a nose and throat specialist, who works in co-operation with Dr. A. Herpin, a dental surgeon of distinction in the French army. A week was spent at this place, during which time a large number of cases were seen in various stages of treatment. The many types of appliances employed for fixation of the jaw in cases of fracture were particularly ingenious and well worked out. The surgical work of an operative character was of a high order and was executed in close co-operation with the dental procedures. The whole clinic was admirably conducted. The fundamental principles insisted on were that the reconstruction of bony defects was the first essential to securing good results, and that the plastic surgery of the soft parts must be made secondary to proper reconstruction of the skeleton. This point of view naturally placed marked emphasis on the importance of proper dental splinting, and has led to the development of an extensive laboratory for the construction of the dental splints above alluded to.

After this, the next clinic visited was at Lyons, where Dr. A. Pont, a dental surgeon, was in charge of the work under investigation. In this clinic many instructive cases were seen and much valuable information acquired. Perhaps



OFFICERS OF B.H. 18

RECONSTRUCTIVE FACE AND JAW SURGERY

the most interesting single development of the work here was the extensive use of cosmetic appliances to replace lost portions of the face, either temporarily, where surgical reconstruction of the lost organ was being planned, or permanently, when such reconstruction was considered impossible. As a result of much experiment along this line, a paste containing wax and gums, with coloring matter, has been invented, which is easily moulded, and reproduces most satisfactorily the appearance of normal flesh. From this paste, noses, ears and lips are modeled and attached to the unfortunate mutilated person with surprisingly good effects. The method has a wide field of usefulness in rendering more tolerable the existence of these unfortunate people, and is worthy of employment in our own army.

About a week was spent in Lyons, and then the various clinics in Paris were visited. Paris was reached just at the time when the Germans were shelling the city and had made their second advance to the Marne with the capture of Chateau-Thierry. All the hospitals about Paris had been emptied of their old patients and were filled with freshly wounded of all descriptions, so that little chance was afforded for the observation of the special type of work under consideration, which is slow and time consuming, and is not done in evacuation hospitals. However, the Hopital Val de Grace, where Professor Morestin has done a great deal of face and jaw work, was visited, as was also the American hospital at Neuilly. At both these places interesting museum specimens and X-ray plates were seen and instructive talks were given by the surgeons who have been engaged in this reconstructive work. The further prospects of the trip were interrupted here by a telegram recalling the team to Base Hospital No. 18 to meet the rush of work which was then coming in.

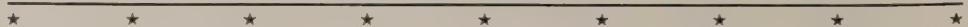


THE NURSES

MEDICAL CARE OF AVIATORS

EARLY in the development of plans for the Expeditionary Force, certain officers of the Medical Corps were sent to England to study the methods in use there. Unfortunately the plans they proposed were too sweeping as to elaborate organization, and did not meet with the approval of the Chief Surgeon or the General Staff. The net result of this disagreement was that nothing was done to organize or prepare the medical service with the air service units to meet its peculiar problems. It was not until May, 1918, that on the request of the Chief of Air Service the matter was again opened in the Chief Surgeon's office. Meantime, in the United States, a separate medical department was organized and development made along two distinct lines. A number of specialists in the ear and eye were appointed "Flight Surgeons" and equipped with turning chairs and a portable eye-testing set and turned loose to test and classify candidates for flying. This has lead to a rather narrow point of view as to the criteria of flying fitness. The second development was the so-called research laboratory, in which physiology, psychology, general medicine and the eye and ear were represented and an elaborate equipment of special apparatus provided. This latter development is much more important and has furnished the means of accumulating important facts.

As the Medical Department in France had absolutely no information of the developments at home, a start was made independently by sending an officer to the English laboratories to study their methods in the newly organized Royal Air Force, made up of the older independent organizations of the Army and Navy. It so happened that Dr. Thos. R. Boggs was selected for this duty, and he spent some five weeks in the close study of the administration, hospitalization and laboratory methods, finding much of practical value. As a result of his report and recommendations on the British R.A.F., he was instructed to prepare a report on the present status of medical work with our air service in France, with recommendations. After the completion of this duty in August, 1918, he was detached from the office of the Chief Consultant Medical Service, and assigned to the Staff of the Chief of Air Service, Major-General Patrick, as Medical



Consultant Air Service, with direct access to the Chief Surgeon and to the Chief of Air Service. It was to be his duty to reorganize and co-ordinate the medical work in this field as a bureau of the Medical Department.

While the plans for this change were formulating and passing slowly through the machine, there arrived from the States Medical Research Laboratory Number 1, headed by Col. W. H. Wilmer, with a large staff of experts and many tons of apparatus. This most fortunate coincidence greatly accelerated the possibilities of improved work. The laboratory was stationed at the principal training center, Issoudun, and as soon as some apparatus could be unpacked and installed work began in temporary quarters. Almost immediately the influence of this improved work was evident in the falling off in accidents at the training center.

Meantime Dr. Boggs' own work was that of advance agent and general adviser. This kept him traveling over a great part of France to the air service groups in corps and armies and to the scattered schools in the intermediate and base sections. A great deal of discussion with commanding air service chiefs was necessary to get them interested in giving the new methods a trial, co-operating in the general measures designed for the health and fitness of the flying men and recognizing the fact that in its last analysis flying fitness was a medical rather than a military problem. In addition to this, it fell to his lot to deal with the Red Cross in devising a plan for special rest homes for the flying men, which should give them comfort, good food and attractive physical exercise, away from large towns and their temptations. They also arranged for the development of student officers' messes at the schools, with American ladies to manage them and to furnish the normal feminine associations which are the best offset to the temptations to which these temperamental young men are peculiarly prone. Plans were also made for mobile recreation tents to go with the squadrons and furnish reading and games and a comfortable sitting-room, so much needed in the isolated life inseparable from the field work of squadrons. With the change in the Chief Surgeon's office which occurred about this time, there was also necessary more frequent visits to Tours, in order, by personal presentation, to get more active co-operation with our aims.

In general it may be said that the work, while only in active progress for about fourteen weeks of the battle period, has resulted in the recognition of the essential and permanent value of special medical supervision of all flying personnel by the military administration of the air service. Ample material has been placed at our disposal for a careful comparative study of the experienced pilots, observers and bombers from the front as a means of checking the laboratory methods and arriving at the truth with regard to their value. Special facilities for leave and recreation have been recognized as essential to efficient service, and the trained medical man has been accepted as a valuable assistant,

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instead of viewed with suspicion. All of this has a great bearing on the future development of the air service.

In conclusion it must be emphasized that the laboratory work which is such an essential part of the scheme was developed in the States and all credit is due to Colonel Wilmer and Lieutenant-Colonel Rowntree for this work, without which we should have been very slow in getting started. And, furthermore, that the intelligent interest and support of the Chief of Air Service and the Chief of Training were all that could be asked, and were a most important element in the rapid progress made.



THE NON-COMMISSIONED OFFICERS

PROFESSIONAL RECORDS OF HOSPITAL

THE following report includes a list of the diseases treated at Base Hospital No. 18 from its opening, August 1, 1917, until its official close, on January 8, 1919. The classification of diseases is that employed in the Manual of Sick and Wounded Reports of the A.E.F., revised September 15, 1918.

ANALYSES OF REPORT

I. *Infectious and Epidemic Diseases.*

The predominating disease in this subdivision is influenza, which included many cases of fever of unknown origin of the three-day type. Under the diagnosis of influenza are therefore included many cases of what has been termed in the A.E.F., "Spanish Flu," whose etiological relationship to the influenza bacillus is still a matter of discussion.

The large number of cases of typhoid fever is striking and is explained by the fact that Base Hospital No. 18 was designated to receive all cases of typhoid fever from a large area, and, consequently, the admissions were relatively high. Base Hospital No. 18 also received all cases of meningitis from the same area. The number of cases of measles was small, while there were only three cases of trench fever admitted to the hospital.

Total number of infectious and epidemic diseases	2,014
Influenza	52.0
Mumps	9.8
Typhoid	3.2
Meningitis	2.0
Measles	1.3
Para-typhoid	0.8
German measles	0.5

II. *Tuberculosis.*

The fact that in the A.E.F. the demonstration of the tubercle in the sputum is required before a positive diagnosis of pulmonary tuberculosis can be made,

accounts for the relatively large number of cases under the caption "Under observation for tuberculosis." In general, the number of cases of tuberculosis is small, which may be considered as an index of the splendid physical material composing the rank and file of the A.E.F. The careful exclusion of suspicious cases during enlistment, has also undoubtedly been a factor in preventing the spread of this disease. The pulmonary form of tuberculosis predominates. Only one case of tuberculous meningitis occurred in the series of meningitis cases.

Total cases of tuberculosis.....	101
Pulmonary form.....	88.5
Other forms.....	12.0

III. Venereal Cases.

The total number of venereal cases treated was 836. The urethral form of gonorrhea occurred most frequently, while next in order of frequency was gonorrhreal arthritis. The total number of cases of syphilis was 190. The primary form predominated.

Total number of venereal cases.....	836
Gonorrhreal Infectious	77.0
Syphilitic.....	23.0
Gonorrhreal urethritis.....	28.0
Gonorrhreal arthritis.....	22.8
Gonorrhreal epididymitis.....	7.6
Gonorrhreal orchitis.....	7.0
Gonorrhreal prostatitis.....	2.5
Syphilis, primary.....	12.0
Syphilis, secondary.....	5.2
Syphilis, tertiary.....	5.8

IV. General Diseases.

The low percentage of alcoholism and drug habits is striking.

V. Nervous Diseases.

Epilepsy leads the list of nervous diseases, while paralysis are the next most frequent.

Total nervous diseases	87
Epilepsy.....	28.0
Paryses.....	23.0

P R O F E S S I O N A L R E C O R D S O F H O S P I T A L



VI. Mental Diseases.

By far the most common disease under this heading is psychasthenia, which includes many cases of the condition formerly diagnosed as shell shock. The proportion of mentally deficient is not large, nor is that of dementia præcox. Neurasthenia contributed its quota, which, however, is not excessive, facts which point to a careful examination of the mental qualifications of the soldiers at the points of enlistment.

Total mental diseases.....	434
Psychasthenia.....	50.0
Neurasthenia.....	16.0
Hysteria.....	11.0
Dementia præcox	11.0

VII. Diseases of the Eye.

Total number of diseases of the eye.....	468
Astigmatism	50.0
Conjunctivitis.....	18.0

The proportion of cases of conjunctivitis is probably much larger, as practically every case of mustard gas poisoning had an associated conjunctivitis. These cases have been listed under the general head of gas inhalation.

VIII. Diseases of the Ear.

Total number of diseases of the ear.....	365
Otitis media	93.0
Mastoiditis.....	7.0

IX. Diseases of the Nose.

Total number of diseases of the nose.....	238
Adenoids.....	43.0
Sinusitis.....	38.0

X. Diseases of the Throat.

Total number of diseases of the throat.....	437
Tonsillitis.....	55.0
Peritonsilar abscess.....	6.2

G E N E R A L H I S T O R Y

XI. *Circulatory Diseases.*

Under this heading the greatest number of admissions is for hemorrhoids. The truly cardiac disorders are not very numerous, which is an index of the splendid physical material in the ranks, which bore the strain of warfare remarkably well.

Total disorders of the circulatory system.....	683
Hemorrhoids.....	40.0
Myocarditis.....	14.0
Varicocele.....	12.0
Endocarditis.....	4.1
Pericarditis.....	3.0

XII. *Respiratory Diseases.*

The largest number of fatalities, exclusive of battle casualties, as will be seen in the analysis of the death statistics, occurred in this important group of diseases. The broncho-pneumoniae have been particularly fatal infections, and proportionally killed more soldiers than any other disease.

Total number of respiratory diseases.....	1,226
Bronchitis.....	59.0
Broncho-pneumonia.....	14.0
Lobar pneumonia.....	12.0
Pleurisy (with effusion).....	9.0
Bronchiectasis.....	0.6
Hemothorax.....	0.2
Pneumothorax.....	0.1

XIII. *Digestive System.*

Of the strictly medical diseases under this heading, acute catarrhal enteritis was by far the most frequent. Hernias were very common, and with appendicitis, furnished the larger part of the purely civil surgery.

Total diseases of the digestive system.....	1,381
Inguinal hernias.....	25.0
Enteritis.....	20.0
Appendicitis.....	19.0

XIV. *Diseases of the Anus.*

Total diseases of the anus.....	52
Fistula in ano.....	96.0

P R O F E S S I O N A L R E C O R D S O F H O S P I T A L

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XV. Diseases of Liver and Gall Bladder.

Total diseases of liver and gall bladder	29
Cholecystitis.....	51.0
Abscesses of liver	10.0
Cholelithiasis.....	35.0

XVI. Genito-Urinary System.

Total diseases of genito-urinary system.....	153
Phimosis.....	39.0
Nephritis	16.0
Hydrocele.....	21.0
Nephrolithiasis.....	7.0

XVII. Diseases of the Skin.

Total number of the diseases of the skin.....	443
Pyoderma.....	22.0
Carbuncle.....	9.0
Dermatitis.....	11.0
Furunculosis.....	11.0

XVIII. Bones and Organs of Locomotion.

Total number of the diseases of the bones.....	47
Osteomyelitis.....	53.0
Periostitis.....	41.0
Total number of the diseases of the joints.....	89
Synovitis.....	56.0
Loose bodies in joints.....	30.0
Total number of the miscellaneous diseases of the organs of locomotion.....	89
Flat foot.....	47.0
Ingrown toenail	19.0
Trench foot.....	7.0

XIX. Diseases Caused by External Causes.

Total number of diseases caused by external causes.....	2,559
Gas, absorption of deleterious	49.0
Fractures, accidental.....	15.0
Sprains.....	10.0

G E N E R A L H I S T O R Y

XX. Gunshot Wounds.

Total number of cases of gunshot wounds..... 4,486
 It is interesting to note the localization of the gunshot wounds in their order of frequency.

Fibula and tibia.....	15.0
Femur.....	14.0
Hands.....	9.0
Radius and ulna.....	9.0
Metatarsus, tarsus and phalanges	6.0
Head.....	6.1
Humerus.....	5.0
Scapula.....	5.0
Chest.....	5.0
Abdomen.....	4.0
Buttocks.....	2.0
Neck.....	2.0
Penis and scrotum.....	0.4

XXI. Analysis of Death Statistics.

Total number of admissions to hospitals.....	17,024
Total number of deaths.....	204
Percentage of mortality.....	1.2

XXII. Diseases in the Order of Frequency in which they caused Death.

Broncho-pneumonia.....	31.0
Gunshot wounds.....	24.0
Pneumonia, lobar.....	7.0
Meningitis (cerebro-spinal).....	7.0
Accidents, by trauma.....	6.0
Scarlet fever.....	3.0
Typhoid fever.....	3.0
Empyema.....	0.5
Tuberculosis.....	0.5

The feature worthy of comment in the death statistics, is the high mortality of broncho-pneumonia. This disease killed more soldiers in Base Hospital No. 18 than did wounds incurred in battle. Though the number of cases of gunshot wounds admitted was about seventy-one times as many as that of bronchopneumonia, the mortality was less by about 7 per cent. Again the low total per-

PROFESSIONAL RECORDS OF HOSPITAL



centage mortality of 1 per cent is quite striking. These figures point out that a soldier not mortally wounded in battle has an excellent chance for eventual recovery, if he can be afforded proper treatment, and that the Army has more to fear from the virulent respiratory diseases than the shells of the enemy.

XXIII. *General Statistics.*

Showing the diseases classed in the order of their frequency.

Gunshot wounds.....	4,486
Diseases from external causes.....	2,559
Infectious and epidemic diseases.....	2,014
Diseases of the digestive system.....	1,381
Diseases of the respiratory system.....	1,226
Venereal diseases.....	836
Diseases of the circulatory system.....	683
Diseases of the eye.....	468
Diseases of the skin.....	443
Mental diseases and defects.....	434
Diseases of the ear.....	365
Diseases of the nose.....	238
Tuberculosis.....	233
General diseases.....	202
Genito-urinal diseases (non-venereal).....	153
Malformations and ill-defined diseases.....	145
Diseases of the joints	89
Nervous diseases.....	87
Diseases of the anus	52
Diseases of the bones.....	47
Diseases of the liver and gall bladder.....	29



THE OPERATING ROOM

OBITUARIES

MISS JEANNETTE BELLMAN

Miss Jeannette Bellman was born in Dayton, Ohio, March 4, 1885. She graduated from the Training School for Nurses, Christ Hospital, Dayton, Ohio. She entered the service of the United States Army June 29, 1917, and was on duty at Fort Sam Houston, Base Hospital No. 1, until May, 1918, when she was ordered to report in New York for overseas duty. The contingent of casual nurses, of which she was a member, sailed from New York on June 12, 1918, and arrived at Liverpool, England, on June 25, 1918.

Miss Bellman was one of the group of twenty-five nurses who were attached to Base Hospital No. 18 on July 8, 1918. She was on duty on the ward from that time until the day she was taken ill, November 2nd. Her care for the patients was untiring and she never spared herself in working for them. After a short and severe illness, she died on November 12, 1918.

MISS MIRIAM E. KNOWLES

Miss Miriam E. Knowles, daughter of Mr. and Mrs. Thomas C. Knowles, of Yardley, Pa., died of scarlet fever November 12, 1917, at Base Hospital No. 18, A.E.F.

Miss Knowles was a graduate of Wellesley College and of the Johns Hopkins Training School for Nurses. She was one of the first to volunteer her services and joined the Hopkins Unit on June 4, 1917, with which she served until her death. She was a most efficient and devoted nurse.

Her friends and professional associates feel deeply the loss of so loyal a member of the profession.

EDWIN S. LINTON

Edwin S. Linton was born in Washington, Pa., the son of Dr. Edwin Linton, Vice-President of Washington and Jefferson College and head of the Biological Department of that institution. He was graduated from Washington and Jefferson in June, 1914, with the degree of Master of Arts. In the fall of 1914 he

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entered Johns Hopkins Medical School. When in May, 1917, Base Hospital No. 18 was being organized for service in France, Edwin Linton was finishing his third year. An opportunity was given to members of his class to enlist. He was one of the first. This opportunity for service was to him the call of duty to which he gladly responded.

In France during the difficult weeks of organization and adaptation he served faithfully and well. He lived to see Base Hospital No. 18 established as an efficient working unit of the United States Army Hospital System.

In November he contracted scarlet fever and after an illness of short duration he died November 14, 1917. The sense of loss at Base Hospital No. 18 was universal. He was known and loved by all. Because of his faithfulness to trust he had won the high regard of his officers and because of himself he held the abiding affection of his associates.

LYLE RICH

On Saturday, December 8, 1917, Lyle Rich, Private First Class, U.S. Base Hospital No. 18, A.E.F., died, the second of the group of thirty-two medical students to give his life for the Great Cause.

Since the establishment of Base Hospital No. 18 in France he had worked in Captain Walter Baetjer's laboratory. He was an indefatigable worker in the early days, when, amid numerous difficulties, the hospital was taking form. He contracted typhoid fever the latter part of November. On the ward he had the closest attention from Colonel Boggs and Captain Mason. When perforation occurred on December 6th he was rushed immediately to operation. Col. W. A. Fisher performed the operation, but all efforts were unavailing; he died Saturday morning, December 8, 1917.

As medical student and laboratory worker he was serious, industrious, trustworthy; as a soldier he was alert, obedient; as a friend he was loyal; in all—Lyle Rich was a true gentleman.

HORACE ELMER TETER

On Thursday, February 28, 1918, Horace E. Teter, Corporal, Medical Detachment Unit A, attached to Base Hospital No. 18, A.E.F., died of pneumonia after a short illness.

His devotion to duties won him promotion soon after his enlistment. He acted in the capacity of Mess Sergeant during the Unit's stay at Fort Porter, and he was thoroughly efficient in these lines.

Shortly after his arrival in France he was taken sick, which later resulted in his death. His death marks a void in our hearts which can never be filled.



THE HOSPITAL TRAIN

ATTACHED OFFICERS

LOUIS CASAMAJOR, *Captain*

Commissioned May 4, 1917.

Sailed from New York May 14, 1917.

Landed in England May 23, 1917.

Landed in France May 31, 1917, with U.S. Base Hospital No. 2.

May 31, 1917–October 2, 1917, No. 1 (Presby, U.S.A.) General Hospital, B.E.F.

October 2, 1917–October 14, 1917, No 3 Australian C.C.S., B.E.F.

November 22, 1917–May 3, 1918, No. 1 (Presby, U.S.A.) General Hospital, B.E.F.

May 5, 1918, Base Hospital No. 18, A.E.F.

EDWARD WILSON COLLINS, *Captain*

763 E. Allegheny Ave., Philadelphia, Pa.

Received commission in Medical Reserve Corps, April 25, 1917, First Lieutenant, M.R.C.

Ordered to Camp Greenleaf, Fort Oglethorpe, Ga., September 28, 1917.

Ordered to Base Hospital Camp, Augusta, Ga., department of oto-laryngology, October 13, 1917, which was base hospital to 28th Division, Pennsylvania National Guard.

Ordered overseas in "July Medical Replacement Draft," July 2, 1918.

Sailed from Hoboken, N.J., July 13, 1918.

Landed in Liverpool, England, July 26, 1918.

Proceeded by way of Southampton across English Channel to Cherbourg, France, then to St. Aignan (Loir et Cher).

Billeted at These just outside of St. Aignan, which was a school for sanitary troops from August 1 to August 26, 1918.

August 26th ordered to Vichy (Allier) Medical Center.

August 31st to September 28th ordered to Base Hospital No. 18, Bazoilles (Vosges), to substitute for Dr. Slack, who was sick.

Received captaincy at Camp Hancock, Augusta, Ga., February 11, 1918.

A T T A C H E D O F F I C E R S

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J. A. C. COLSTON, *Major*

Called into active service May 3, 1917.
Sailed from New York May 8, 1917.
Arrived at Liverpool May 19, 1917.
Sailed from Southampton May 25, 1917.
Arrived at Rouen May 26, 1917.
Assigned for temporary duty at No. 9 General Hospital, B.E.F., Rouen, May 27, 1917.
Assigned for temporary duty at No. 6 General Hospital, B.E.F., Rouen, May 30, 1917.
Reported to A.D.M.S., 15th Division, B.E.F., June 14, 1917.
Assigned for duty with 46th Field Ambulance, 15th Division, B.E.F., June 15, 1917.
Served with 46th Field Ambulance and at various times with the following infantry battalions of the 15th Division: 78th Battalion, King's Own Scottish Borderers; 13th Battalion, The Royal Scots; 6th Battalion, The Queen's Own Cameron Highlanders; continuously at the Ypres and Arras fronts until November 8, 1917.
Relieved from duty with B.E.F. November 8, 1917.
Reported for duty to Chief Surgeon, 42nd Division, A.E.F., November 24, 1917.
Evacuated sick to Base Hospital No. 18, December 22, 1917.
Assigned to duty Base Hospital No. 18 about February 3, 1918.
Accepted commission of captain, M.C., October 11, 1917.

THOMAS ANTHONY DINAN, *Catholic Chaplain*

Entered American Red Cross Service on January 14, 1918.
Arrived at Bazoilles-sur-Meuse on January 31, 1918, and assigned to Base Hospital No. 18. Was Red Cross Chaplain up to October 18, 1918, and from then on Regular Army Chaplain.
Home address: La Salette College, 85 New Park Avenue, Hartford, Conn.

ERNEST SPURR DU BRAY, *Captain*

Last position in civil life before entering the U.S. Army: Resident physician, City Hospital, Bay View, Baltimore, Md.
Commissioned First Lieutenant, M.R.C., June 12, 1917, active service July 18, 1917.
Sailed from New York August 14, 1917.

G E N E R A L H I S T O R Y

Arrived Liverpool, England, September 2, 1917.

Arrived London, England, September 3, 1917.

Left England and arrived in Boulogne, France, September 7, 1917.

Ordered to B.E.F. front on September 8, 1917, and attached to the 72nd Field Ambulance, near Ypres.

Transferred to 24th Division Ammunition Column, B.E.F., on September 28, 1917. The 24th Division Ammunition Column was then stationed near Peronne.

January 12, 1918, promoted to captaincy, M.C., U.S.A.

Ordered to Base Hospital No. 18, A.E.F., France, on April 2, 1918.

Arrived Base Hospital No. 18, A.E.F., at Bazoilles-sur-Meuse on April 14, 1918.

Served on Medical Service of Base Hospital No. 18, A.E.F., from then on.

GEORGE R. DUNN

Commissioned First Lieutenant, M.R.C., July 26, 1917.

Ordered to report for active service on September 16, 1917.

To New York for overseas duty on September 26, 1917.

Embarked at New York on October 9, 1917, on Steamship *Baltic*.

Landed at Liverpool, England, on October 24, 1917.

On duty at 2nd Northern General Hospital, Leeds, England, from October 29, 1917, to April 25, 1918.

Left England April 25, 1918, and arrived at Base Hospital No. 18 for duty on April 29, 1918.

WILLIAM THOMAS EUDY, *Lieutenant*

Entered M.O.R.C., Fort Riley, Kans., April 18, 1918.

Assigned to duty at Camp Hancock, Augusta, Ga., to examine recruits, July 2, 1918.

Assigned to duty with Medical Replacement Unit No. 39 for overseas duty, August 23, 1918.

Sailed for Europe, September 8, 1918.

Assigned to duty at Base Hospital No. 18 October 5, 1918.

FRANK A. EVANS, *Captain*

Commissioned First Lieutenant, M.R.C., September 19, 1915.

Attended Medical Officers' Training Camp at Plattsburg, N.Y., August session, summer of 1916.

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Ordered to report to Washington, D.C., to prepare for overseas service May 6, 1917, and left Washington May 18, 1917, with orders to report to the British authorities in London.

Embarked at New York on S.S. *Mongolia*, Atlantic Transport Line, May 19, 1917, landing at Falmouth, England, June 2, 1917.

With orders for duty with the British Expeditionary Forces in France, reported June 7, 1917, to the Commanding Officer, Boulogne area, and was assigned to Stationary Hospital No. 14, B.E.F., at Wimeraux.

Transferred to the Third Division, B.E.F., June 11, 1917, and was assigned to the Seventh Field Ambulance Company.

Transferred for duty as Battalion Medical Officer to the 8th Battalion, King's Own Royal Lancashires, July 27, 1917, and again on August 24, 1917, to the 1st Battalion, Gordon Highlanders, both of 76th Brigade, 3rd Division, B.E.F.

Commissioned as Captain, M.R.C., September 20, 1917.

Awarded British Military Cross, September 26, 1917.

Received "Regimental Citation" from 1st Gordon Highlanders, October 7, 1917.

Received orders to report to Base Hospital No. 18, A.E.F., January 6, 1918, and reported there January 15, 1918.

RAY E. HUNT, *Y.M.C.A. Secretary*

Entered Y.M.C.A. Service, Fort Snelling, September 1, 1917.

Became General Secretary, Fort Snelling Y.M.C.A., October 1, 1917.

Ordered to New York October 24, 1917; landed at Bordeaux, reached Neufchateau November 8, 1917. Assigned to 101st Machine Gun Battalion January 15, 1918, transferred to 101st Engineers; transferred to Base Hospital No. 18 April 1, 1918. Became Acting Chaplain of Base Hospital No. 18 on June 1, 1918.

Home address: 3325 Grand Avenue, Minneapolis, Minn.

LOUIS A. KING, *First Lieutenant*

Enlisted at Barado, Mich., September 20, 1917.

Commissioned October 4, 1917.

Ordered into active service April 4, 1918, Station Camp Greenleaf, Fort Oglethorpe, Ga.

Ordered overseas May 13, 1918.

Sailed from New York June 8, 1918, on Cunard S.S. *Aquitania*.

Arrived Liverpool, England, June 15, 1918.

Sailed from Southampton, England, June 19, 1918.

Arrived Le Havre, France, June 20, 1918.

G E N E R A L H I S T O R Y

Arrived at Blois, France, June 21, 1918.

Assigned to Base Hospital No. 18, arriving June 24, 1918.

Assigned to Ward D, Base Hospital No. 18.

Born Memphis, Tenn., September 21, 1869.

Graduate Saginaw, Mich., 1903.

JOHN C. LYMAN, *Captain*

Commissioned May 1, 1917.

Called into active service May 16, 1917; sailed from New York on May 17, 1917.

Landed in Liverpool, England, May 28, 1917. Crossed channel June 2nd from Folkestone to Boulogne, where I reported to the British R.A.M.C. for duty.

Assigned to British Stationary Hospital No. 8 at Wymereux. Served at this hospital under Major Sinclair during the Messines push. Ordered to the 37th Division, B.E.F., June 11, 1917, which was resting on the Lys. Division was ordered into the line in front of the Messines Ridge. Spent seven months, most of the time as Battalion M.O., with this division, which remained in the line for the entire time.

Transferred to A.E.F. January 8, 1918; reported for duty at Base Hospital No. 18, A.E.F., January 9, 1918.

ALBERT S. McCOWN, *First Lieutenant*

May 17, 1918, commissioned as First Lieutenant in Medical Reserve Corps.

June 15, 1918, on duty at Camp Hospital No. 31, Camp de Mencan, as Genito-Urinary Officer for camp and hospital.

August 23, 1918, on duty as assistant with thoracic operating team, headed by Major J. L. Yates.

October 23, 1918, on duty at Base Hospital No. 18.

W. H. MICHAEL, *P. A. Surgeon, U.S. Navy*

Arrived in France on February 6, 1918, as M.O., 2nd Battalion, 6th Marines.

February 11, 1918, as M.O., 3rd Battalion, 6th Marines.

With the latter unit from March 15, 1918, to August 8, 1918, in the Verdun sector, at Bois de Belleau to the left of Chateau-Thierry, and at Vierzy in the counter-offensive in the middle of June.

Awarded the D.S.C. in the attack with the Marines on June 6th, at the Bois de Belleau.

Detached from 6th Marines on August 8, 1918, and ordered to Base Hospital No. 18 for duty.

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HUGH J. MORGAN, *First Lieutenant*

From Sanitary School at Langres to Casual Officer Depot.

From Casual Officer Depot to Base Hospital No. 23 at Vittel for duty June 15, 1918.

From Base Hospital No. 23 to Base Hospital No. 15 at Chaumont for temporary duty June 30, 1918.

From Base Hospital No. 15 to Casual Operating Team No. 510 July 1, 1918.

With Casual Operating Team No. 510 in the Chateau-Thierry, St. Mihiel, Verdun, Argonne and Champagne drives.

November 15, 1918, relieved of duty with Casual Operating Team No. 510 and ordered to Base Hospital No. 18 for duty.

JOHN J. SINGER, *Captain*

September 1, 1917, to February 18, 1918, on duty at Pittsburgh, Pa., as Adjutant and Assistant Instructor, Pittsburgh School Military Roentgenology.

February 18, 1918, to March 11, 1918, on duty Cornell Medical School for course in mobile X-ray equipment.

Sailed March 11, 1918, from Hoboken.

Arrived Brest, France, March 20, 1918.

March 22, 1918, to March 31, 1918, at Casual Officers' Depot, Blois.

April 1, 1918, ordered to Base Hospital No. 18.

Home Address: 542 W. Pittsburgh Street, Greensburg, Pa.

JAMES PRESCOTT WALCOTT

Mr. Walcott came to Base Hospital No. 18 in January, 1918, and continued to direct the Red Cross activities until December, 1918. Before he left he also had full charge of the entire valley.

CHARLES HANSELL WATT, *Captain*

Commissioned April, 1917.

Entered active service May 30, 1917.

Entered Medical Officers' Training Camp, Fort Benjamin Harrison, Ind., June 2, 1917. June 16th ordered to Washington to await sailing orders. Sailed from New York July 23rd, landed in Liverpool August 12th, and Boulogne, France, August 14, 1917. August 15th assigned to duty with No. 14 General Hospital, B.E.F. August 28th assigned to duty with 16th Division, B.E.F. While on the strength of this division was assigned to duty with Field Ambulance Nos. 112,

G E N E R A L H I S T O R Y

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113 and 3 (British) Casualty Clearing Station. January 3, 1918, was relieved from duty with B.E.F. January 6, 1918, on duty Base Hospital No. 18, A.E.F. Commissioned as Captain, January 12, 1918.

Home address: Thomasville, Ga.

PEREGRINE WROTH, JR.

Commissioned Captain, M.R.C., on July 26, 1918.

Ordered to Camp Greenleaf for duty on August 10, 1918.

Ordered to Camp Crane on October 12, 1918.

Ordered to temporary duty, influenza epidemic, on October 15, 1918.

Ordered overseas October 25, 1918.

Landed Liverpool, England, on November 2, 1918.

On temporary duty at Winnal Downs, Winchester, England, Cherbourg, France, Le Mans and Chaumont.

Assigned to Base Hospital on November 24, 1918.



THE VALLEY, B.H. 18

ALPHABETICAL LIST OF PERSONNEL

OFFICERS

Baer, Dr. William S.
Baetjer, Dr. Walter A.
Bernheim, Dr. Bertram M.
Boggs, Dr. Thomas R.
Boyd, Dr. Montague L.
Bridgman, Dr. E. W.
Brun, Dr. B. Lucien
Casamajor, Dr. Louis
Clark, Mr. Henry B.
Collins, Dr. Edward W.
Colston, Dr. J. A. Campbell
du Bray, Dr. Ernest S.
Dunn, Dr. George Robert
Eaton, Dr. H. B.
Eudy, Dr. William Thomas
Evans, Dr. Frank A.
Finney, Dr. J. M. T.
Fisher, Dr. William A., Jr.
Fulton, Dr. Harry C.
Getz, Dr. Lawrence
Guthrie, Dr. Clyde G.
Happ, Dr. William
Heuer, Dr. George J.
Hutchins, Dr. Amos Francis
King, Dr. John H.
King, Dr. Louis A.
Kline, Dr. Benjamin S.
Lankford, Dr. Livius, Jr.
Love, Dr. S. Glenn
Lyman, Dr. John Cushman
Mason, Dr. Verne R.
McCown, Dr. Albert L.
Michael, Dr. William Howard
Morgan, Dr. Hugh J.
Noble, Dr. William D.
Porter, Dr. Clarence
Ross, Dr. M. Wilson
Shaw, Dr. Henry N.
Singer, Dr. John J.
Slack, Dr. Harry R.
Stone, Dr. Harvey B.
Sydenstricker, Dr. Virgil P.
Tipton, Mr. John M.
Walker, Dr. George
Waters, Dr. Charles A.
Watt, Dr. Charles Hansell
Wharton, Dr. Lawrence R.
Whitham, Dr. Lloyd B.
Wroth, Dr. Peregrine, Jr.

NURSES

Adams, Christine M.
Adamson, Ruth A. E.
Baily, Florence M.
Baker, Bessie
Barnard, Annie
Beal, Marion
Beers, Bertha C.
Bellman, Jeannette

A L P H A B E T I C A L L I S T O F P E R S O N N E L

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|---------------------------|------------------------|
| Berry, Jessie Lee | Keen, Nancy F. |
| Biery, Flora Eva | Kendall, Ruby |
| Bunting, Gertrude I. | King, Mrs. Lyda |
| Bunting, Mary E. | Kennedy, Josephine |
| Bridge, Ruth | Knowles, Miriam E. |
| Carr, Alice G. | Kraker, Theresa |
| Carter, Emma E. | La Bier, Ruby I. |
| Chick, Caroline B. | Lamar-Miller, Cazenove |
| Christman, Caroline Hirst | La Velle, Margaret E. |
| Coons, Jean E. | Liphart, M. Maye |
| Craigen, Claire R. P. | Lowry, Hattie G. |
| Cushman, Ruth | Lyman, Mary G. |
| Davis, Mary Elizabeth | McCandless, May M. |
| Dean, Eva S. | MacKay, Annie |
| Denniston, Margaret | MacVarish, Rhoda E. |
| Dwyer, Katherine | Mae, Harriett |
| Ellicott, Katheryn | Mergy, Aline |
| Erskine, Helen Mar | Meyer, Agnes |
| Farnsworth, Clara J. | Michael, Fannie C. |
| Faulkner, Amy E. | Miller, Mabel Malloy |
| Fitzgerald, Helen Dorothy | Millner, Angele R. |
| Foley, Abigail | Moysey, Madeline |
| Frankhauser, Louise E. | Myer, Eleanor L. |
| Frazer, Josephine | Nelson, Elizabeth |
| French, Corinna D. | O'Connor, M. Annie |
| Frierson, Neely | Oliver, Evelyn |
| Gainey, Helen M. | Omohundro, Bessie W. |
| Goldthwaite, Mary A. | O'Neil, Catherine |
| Grant, Isabel F. | Packard, Helen S. |
| Haefner, Emma | Perot, Gladys |
| Hall, Maude H. | Quigley, Marie L. |
| Hall, Mary | Ramsey, June A. |
| Harlan, Elizabeth | Raymond, Agness M. |
| Hartshorne, Florrie | Reed, Mabel |
| Hewitt, Estelle G. | Richards, Elsie E. |
| Hollindale, Edith Amy | Robertson, Amanda T. |
| Huff, Mathilda E. | Rogers, Ann S. |
| Janvier, Celeste | Sayres, Margaret W. |
| Jones, Eleanor | Shipley, Mary A. |
| Jones, Ethel Louise | Sinclair, Margaret |

G E N E R A L H I S T O R Y

★ ★ ★ ★ ★ ★ ★ ★ ★

Stanley, Leota E.
Stock, Pauline B.
Thompson, Olive I.
Trax, Eurith
Velable, Laura D.

Watson, May
Weisbrod, Bertha E.
Wilson, Edna Marguerite
Wright, Catherine M.

ENLISTED MEN

Adler, Harry G.
Ackerman, Clarence H.
Anderson, Eugene C.
Anderson, William M.
Angelier, Charles F.
Argabright, Joseph H.
Arman, Albert
Ashley, William L.
Avery, William E.
Avery, Walton
Badner, David
Badner, Moe
Bamford, George A.
Bell, Fred J.
Bennett, Fred J.
Bennett, Royston
Bonadio, Michael
Bowen, Bertram M.
Bowden, David T.
Boyd, John W.
Brady, William E.
Bremmer, Frederick G.
Brewster, Albert H.
Brown, Alzero F.
Brown, Grover
Burns, Ira Lee
Burns, James
Carter, Alexander
Casey, Paul A.
Cassidy, Clarence F.
Chambers, Morris Lee
Christacks, William
Chlad, John

Christiansen, John
Christopher, William H.
Clark, Theodore
Cohn, David M.
Coblentz, Richard C.
Coles, Harry F. H.
Conroy, Frank D.
Cump, Guy
Dade, Virgil J.
Daily, Walter J.
Dakin, Elmer
Daniel, Howell E.
DeLozier, Lyman E.
DeMarcillac, Andre
Denver, Charles O.
DeRosso, Antony
Desch, Eugene L.
DeWoody, Philip H.
Dicke, Joseph L.
Dixon, Robert H.
Dunn, Raymond
Dunning, Beverly
Eggerstedt, Edward A.
Eisenberg, Harold
Elvers, Charles F.
Enright, James D.
Finan, Bernard, Jr.
Fisher, John C.
Fleming, Robert A.
French, William L.
Frankel, Philip F.
Gager, Leslie T.
Gazzola, Valentino

A L P H A B E T I C A L L I S T O F P E R S O N N E L

- Gentile, Lawrence
Ghormley, Ralph
Glazer, Raymond
Gold, Samuel G.
Griffith, Bernard G.
Grolock, Louis A.
Haldeman, Eugene P.
Hamburger, Lewis
Harwood, Garland M.
Hawkins, William P.
Helland, Carl F.
Hemsath, Frederick A.
Higinbothen, Paul M.
Holmes, George M.
Holmes, Robert L.
Hooper, Eugene L.
Huiskamp, John E.
Hunter, John A., Jr.
Hunter, Richard I.
Hutchins, Charles L., Jr.
Hyams, Irving
Kelley, William J.
Kelly, William L. J.
Kennard, William H.
Key, John A.
Kircher, Vally P.
King, Charles H.
Kobsa, Charles
Koontz, Amos R.
Kountz, Harry B.
Kraft, Oliver P.
Krauss, Louis
Kutz, Adam J.
Lane, Clifford M.
Lansberg, Frederick
Lathram, Crit C.
Lazarus, Sylvan
Lincoln, Jennings S.
Linton, Edwin S.
McCormick, John T.
McDonald, Donald J.
McFadden, Clarence W.
McFee, William F.
McGee, Robert M.
McGee, Sam O.
McGrath, Michael T.
McGroarty, Robert B.
McIsaac, James
McKee, Elmer E.
Martindale, Joseph W.
Mass, Frank L.
Mayer, William F.
Meekins, Gilbert E.
Miles, George L.
Molesworth, Carlton
Montley, Admiral Dewey
Nelson, Clarence P.
Newhouse, Hamel F.
Nixon, Fred L.
O'Brien, Brendan
O'Neill, Walter I.
Owens, Guy T.
Owens, Marvin S.
Palmer, Charles A.
Petre, Clarence
Petrides, George
Porter, Clarence C.
Poteet, Jesse T.
Price, Robert R.
Pry, Hugh M.
Pscherer, Henry F. J. E.
Rankin, John Paul
Rankin, Richard C.
Reibetanz, Edgar F.
Rich, Lyle
Rickard, Melvin J.
Rhodes, Charles, Jr.
Ringer, James V.
Roddick, Wilken M.
Roeder, Albert

G E N E R A L H I S T O R Y

Roney, Charles F.
Rosenburg, Moses L.
Ross, Willis E.
Rosselot, Clarence L.
Rosskopf, Joseph M.
Robinson, Edward A.
Ruckel, Clyde A.
Rupel, Evan D.
Ryan, John E.
Salisbury, John A.
Sample, Charles B.
Scanlon, John J.
Schriener, Paul J.
Schotta, Elmer S.
Senkyr, Jerome
Shomshor, Edwin D.
Sigel, Irving S.
Skrentny, Joseph H.
Smith, Frederick M.
Smith, John J.
Smith, Woodruff
Smith, Merton T.
Smith, Talmage
Southworth, John D.
Spalding, Edward
Stephens, Andrew J.
Stephens, Ewell R.
Stone, Brownie
Swartz, Ralph E.
Swift, John F.
Thompson, James B.
Todd, James M.
Tracy, Richard J.
Trower, Joseph A.
Tuthill, Harold F.
Valeu, Fred
Vandas, George
Verplanck, Van V.
Vincent, Edward L.
Vitali, Louie
Wagner, Charles
Wagner, John C.
Walsh, William Patrick
Walter, Joseph V.
Wayman, Conrad L.
Welch, William D.
Wiles, Frederick E.
Wilkins, Lawson
William, Samuel B.
Wilmer, William B.
Witherow, Ralph L.
Wilkinson, Norbert A.
Wilson, Herman M.
Woodard, Alva C.
Woodard, Dana V.
Zeskind, Isadore M.

CIVILIAN EMPLOYEES

Finney, John

Paul, John

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